TEACHER CANDIDATES' BELIEFS ABOUT TEACHING AND REPRESENTATIONS OF TEACHING ON THE EDTPA

Alexander Steven Butler

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Doctoral Committee

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Robert Kunzman, Ph.D.

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Keith Barton, Ed.D.

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Alexander Cuenca, Ph.D.

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Joshua Danish, Ph.D.

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To Abby and Lily. Where should we go and what should we do?

Acknowledgements:

I always find these fun to read because they reveal the author's support system and some of their story. Frankly, I am expecting this to be even more fun to write because it means I have completed this portion of my journey. Many years ago, I learned that I live life best when I am in community with others. I am not always the most pleasant community member, nonetheless I know I am better when I am a part of a community. Each of the paragraphs below acknowledge people that have been a part of my community or welcomed me into their community over the last five years.

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Lastly, I want to return and thank Abby and Lily. You are appreciated. I am so excited to support you both on whatever adventure is next. Grace and Peace

Alexander Steven Butler

TEACHER CANDIDATES' BELIEFS ABOUT TEACHING AND REPRESENTATIONS OF TEACHING ON THE EDTPA

This study investigated nine teacher candidates' beliefs about teaching and learning and how these beliefs were related to these nine candidates' representations of teaching in their edTPA portfolio. More specifically, the study investigated what candidates said about what they decided to represent and demonstrate about their teaching practice on the edTPA and then how their responses related to their beliefs about teaching and learning. Candidates participated in two semi-structured interviews. The first interview focused on eliciting candidates' beliefs about teaching and learning through metaphor analysis. The second interview had candidates perform a stimulated recall using excerpts from their edTPA portfolios, and asked candidates' to identify places in the excerpts where they saw their representations aligned or misaligned to their beliefs. Candidates were then asked to explain why they categorized these representations as aligned or misaligned and what impacted their alignment. The study built on previous studies of candidates' experiences and representations of teaching in their edTPA portfolios by comparing candidates' beliefs with their demonstrations and representations.

The study found that candidates' beliefs about teaching and learning and their demonstrations and representations of teaching in their edTPA portfolio were frequently misaligned due to four major constraints. These constraints included: candidates' cooperating teachers, heavily prescribed curriculums, the video component of the edTPA, and candidates' conceptions of the edTPA. Using Beck's theory of action, the study concluded that cooperating teachers and the prescribed curriculum played a more significant role in shaping what candidates

were able to demonstrate in their edTPA portfolios because they impacted candidates' entire edTPA portfolios.

However, it was also clear from candidates' interviews and the sections where the edTPA asked candidates to reflect on their teaching and propose adjustments to their teaching that candidates made thoughtful decisions about what they needed to do to pass the test. Therefore, this study concluded that the edTPA was a well-constructed assessment, yet its effectiveness hinged almost entirely on its implementation. The edTPA did not necessarily reveal whether candidates were prepared to teach but was rather a reflection of their student teaching context. Candidates who received robust and aligned support (i.e., between the university and student teaching placement) were more likely to represent what they believed about teaching in their edTPA portfolio. Implications for teacher educators, researchers, and teacher education programs are discussed.

Keywords: beliefs, edTPA, representations of teaching, teacher candidates, preservice teacher education, teacher education programs, teaching performance assessment, cooperating teachers, metaphor analysis, stimulated recall, teacher licensure; gateway assessment; teacher education

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Robert Kunzman, Ph.D.

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Keith Barton, Ed.D.

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Alexander Cuenca, Ph.D.

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Joshua Danish, Ph.D.

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Chapter One: Introduction

> *Performance assessments that measure what teachers actually do in the classroom, and which have been found to be related to later teacher effectiveness, are a much more potent tool for evaluating teachers' competence and readiness, as well as for supporting needed changes in teacher education.* (Darling-Hammond, 2010a, p. 5)

For nearly thirty years the field of teacher education has been the witness to the ascent of high-stakes performance assessments for teacher licensure. First in California and then nationally, supporters of performance assessments have lauded their ability to evaluate the competence and readiness of candidates to enter the profession. The most recent and prominent example of a high-stakes performance assessment for teacher licensure is the edTPA (Teacher Performance Assessment).[1] The edTPA website describes the assessment as a "performance-based, subject-specific assessment and support system … [used] to emphasize, measure, and support the skills and knowledge that all teachers need from Day 1 in the classroom" (edTPA, n.d.). The edTPA does not claim to measure everything a candidate needs to be able to do competently before they enter the classroom, nor ask candidates to express everything they believe about teaching. Rather, it asks candidates to represent in a snapshot what they can and will do in the classroom. I use the term representations to identify the ways in which candidates depict teaching on the edTPA. Representations make visible the practices of a profession (Grossman et al., 2009).[2] In the edTPA these representations include their written reflections,

[1] The "ed" at the beginning of the assessment's title was added in the Fall of 2013 (A. Henning, 2014) to distinguish it from other TPAs. edTPA stands for Teacher Performance Assessment. Denton (2013) called this a rebranding effort to promote the assessment's educative qualities.

[2] Grossman et al. (2009) investigated how representations were used to help novices see and understand the practices of their chosen field. For example, teacher candidates might be given lesson plans or observe practitioners in the field to learn how to become a teacher. The lesson plans and observations are forms of representations of teaching.

their chosen video clips, and the artifacts from their lessons (including plans, worksheets, presentations, assessments, and feedback) submitted in their edTPA portfolio. The assessment is concerned with candidates' practice. Although some teacher educators consider this concern incomplete, faulty, or not fully hitting the mark (e.g., Au, 2013; Berlak, 2010; N. Henning et al., 2018; National Association of Multicultural Education, 2014), the edTPA has become an important national assessment for aspiring teachers. Given the important role that beliefs play in shaping the perspectives and practices of teachers (Bandura, 1986, Beswick, 2005; Calderhead, 1996; Entwistle et al., 2000; Fives & Buehl, 2012; Mitchell & Hegde, 2007; Nespor, 1987; Pajares, 1992; Richardson, 1996, 2003), the lack of research addressing whether candidates' representations of teaching align with their beliefs is a glaring omission in the field of research on an assessment that serves as the most prominent gatekeeper for teacher licensure.

Personal Interest

The edTPA and its role in teacher education became a personal interest of mine as I began participating in the evaluation of edTPA portfolios for the School of Education. I first heard of the edTPA when I was informed I needed to introduce it within the class I was teaching. The School of Education had begun to implement the edTPA as a graduation requirement. As I began to learn more about the edTPA, I sought out becoming an evaluator. I thought becoming an evaluator would be useful for several reasons. First, I wanted to build my knowledge of the process candidates experienced in becoming a teacher. Since I had not traveled a traditional path into teaching, I thought the edTPA evaluator experience would help me understand the student teaching experience and expectation of graduates. Second, I thought knowing the inner workings of the edTPA would help candidates in the classes I teach at the university because I would be able to structure assignments or conversations to address issues the edTPA addressed. Third, I

thought it would be useful to become familiar with the edTPA because of its adoption by a significant number of states and preparation programs. If I wanted to work in teacher preparation, then I thought I should build my knowledge of a major issue in the field.

The edTPA assesses candidates' performance on three tasks: planning, instruction, and assessment. Candidates are asked to analyze the context of their student teaching, build and describe their lesson plans in Task 1. In Task 2 candidates submit video recordings of themselves teaching the lessons described in Task 1 and analyze their recordings. Task 3 asks candidates to provide examples of feedback on an assessment given to students. Candidates then use assessment data to reflect on students' learning and articulate changes to their instruction and next steps candidates would take to address students' learning. Essentially, the edTPA asks candidates to demonstrate in practice what teacher educators consider vital elements of teaching.

Simultaneously to becoming an evaluator during my third year in the program, I read Labaree's (2004) *The Problem with Ed Schools.* Having worked my way into the field of formal education from a different career, I shared some of the sentiments Labaree suggested the public and academia hold about the field of education. Yet after I became a teacher, I felt some, not all, of these sentiments were unfair. The edTPA seemed to be one way to respond to the fields' (both P-12 and higher education) critics. These critiques centered around the topic of teacher effectiveness. Critics like the National Council on Teacher Quality (NCTQ), the federal government, and corporate reformers were particularly critical of teacher education programs and raised concerns that preparation programs were not inducting effective teachers into the field (Au, 2013). Having read Labaree's book and been in the process of becoming an evaluator, I wrote a critical analysis paper using interest convergence as a framework to understand how and why the edTPA has become a major component of teacher preparation programs across the

country. This research helped me better understand the political climate around the edTPA, why it was adopted quickly, and the implications of this adoption for teacher education programs. The paper also helped me understand the policy and implementation critiques leveled by some scholars. I followed this paper with a literature review sketching a history of the edTPA's development and tracing how both supporters and non-supporters of the edTPA sought to professionalize the field. Professionalization refers to gaining independence from external control (i.e., legislators) and building a positive perception of or respect for the field. The result of this professionalization would include increased compensation or economic status. More specifically, independence refers to the field's ability to define its own standards of practice and knowledge and control admission into the field as other professions (e.g., lawyers and doctors) do. Some scholars critiqued the intention of the edTPA because they were concerned by Pearson's corporate involvement, the possibility of a high-stakes standardized assessment driving candidates' student teaching experience, and the edTPA's lack of emphasis on social justice (e.g., Au, 2013; Dover & Schultz, 2016; Madeloni & Gorlewski, 2013). The literature review led me to see how the edTPA was often critiqued for its use as a policy mechanism and its implementation as a specific type of gatekeeper to the profession. In some ways, the two camps, supporters and non-supporters, were speaking past one another. Yet, they were still trying to address the same issue.

After writing these two papers, I was struck by the lack of consideration of candidates' perspectives. As I continued to read the literature surrounding the edTPA I grew concerned, as others have, that the edTPA was having a detrimental effect on candidates, preparation programs, and possibly being used in ways not intended by its creators. When I finally began reading research explicitly addressing candidates' perceptions, I found even when candidates felt the

edTPA was detrimental, there were still benefits gained (e.g., Paugh et al., 2018; Clayton, 2018a, 2018b; Jacobs, 2018). This suggested there might be salient arguments for its use.

Sources that mentioned candidates' perspectives often focused on candidates' feelings about the edTPA, speaking to the notions that the edTPA was stressful, distracted from student teachers' experience, or caused anxiety. Few studies engaged candidates' perspectives of their representations in their edTPA portfolio and this trend continues (Ahmed, 2019). Around the time I was reading research investigating candidates' feelings about the edTPA, I was reminded of a family member who prepared for the bar exam the previous summer. Her intense preparation over the course of the summer was stressful, anxiety causing, and distracted from her daily job. This reminded me of another family member who had several years prior completed, without financial compensation, a required 1,000-hour internship while completing the requisite coursework for certification in her field and working a part-time job in her industry. In both of these more personal instances, my family members spent a lot of time jumping through the hoops of their profession. Though their experiences were stressful, caused some anxiety, and distracted from other things, these experiences helped them to become trusted professionals. I was left wondering if the teacher preparation processes and expectations were as rigorous, communicated, and preparative as other professional fields' preparation processes. I understood the need to professionalize the field and believed it was reasonable to have common standards to compare candidates and programs across states and allow for candidates to apply for jobs in other states.

My concern over the edTPA's use only grew after I became an evaluator. Despite the edTPA not claiming to measure dispositions, candidates' representations within the edTPA portfolio revealed their dispositions and beliefs about teaching. For example, I was often able to discern

candidates' theories of teaching and learning based on their instructional representations as demonstrated in their lesson plans, video, and written reflections. After evaluating several portfolios, I asked questions such as "How did these candidates make it this far in our program?" and "Do these candidates really believe what they have represented?" These candidates were one step away from becoming teachers and yet represented practices or used resources in their summative assessment about teaching and learning that were contradictory to the School of Education's values. The Indiana University *Student Teaching Handbook* (n.d.) expected student teachers to hold certain professional dispositions and have certain skills. Several of these skills and dispositions included:

1) Develop caring and supportive relationships with students by using explicit activities and communicating regularly with students.
2) Articulate an understanding of cultural, ethnic, gender and learning differences and one's own biases.
3) Have knowledge of their students' and school's community.
4) Employ student evidence to adapt planning, instruction, and assessment.
5) Use a variety of informal and formal assessments to support student learning and monitor students' progress.

Misalignment between candidates' representations and the School of Education's values became apparent while evaluating edTPA portfolios when a candidate described a student being at risk because of their poverty and lack of parental support. This conclusion was drawn because the student did not routinely bring a writing utensil to class. Another candidate labeled Native Americans as savages in a worksheet guiding a group activity. These examples led me to ask how candidates were being evaluated at IU. I came to find out that university supervisors and

cooperating teachers completed evaluations of the candidates. Alongside these evaluations, candidates' grades and their passing of the edTPA determined a candidates' preparedness to teach. Though I believed these candidates could become great teachers and may have misrepresented their practice and beliefs, I was intrigued by how the representations of their practice in the edTPA related to their beliefs about teaching and learning. Did these candidates actually believe that what they represented was effective teaching? This question, coupled with my investigation of the field of research around the edTPA, led me to the research questions considered in this study.

Research Questions

Since 2013, research on the edTPA has sought to understand it as a policy mechanism; evaluate the assessment in terms of its effectiveness (validity, reliability, predictiveness, etc.); and analyze the perceptions of teacher education programs, teacher educators, and teacher candidates. Quite a few studies have investigated student teachers' perceptions about the edTPA. These studies reported student teachers found the edTPA constraining (Chiu, 2014; Cronenberg et al., 2016; An, 2017; Shin, 2018), not representative of the practices they valued (Tuck & Gorlewski, 2016), or not representative of their preparedness for teaching (Margolis & Doring, 2013; Greenblatt, 2016). Several studies moved past investigating perceptions by researching how student teachers decided what to represent and demonstrate about their teaching practice on the edTPA (e.g., Behney, 2016; Meuwissen & Choppin, 2015, 2017). However, I have not found any studies that explicitly investigated the relation between candidates' representations of their teaching practice on the edTPA and their beliefs about teaching.

The only studies specifically investigating what student teachers decided to represent and demonstrate are by Meuwissen and Choppin (2015; 2017). In the first of two studies by

Meuwissen and Choppin (2015), they found most candidates reported they represented what they thought the evaluators were looking for. In the second study, Meuwissen and Choppin (2017) found candidates' representations were not consistent with their typical practice. Candidates made very practical decisions to meet their perceptions of the edTPA's rubrics. Based on interviews with candidates in their initial study (2015), Meuwissen and Choppin (2017) built a conceptual framework for how student teachers represented their practice of teaching on the edTPA. This framework suggested student teachers took four approaches to representation: a rational, sanitized, confessional, or misrepresentational approach. The candidate taking the rational approach only included evidence or commentary that directly linked to the rubric criteria; contextualized or supporting information was not added to their portfolio. The sanitized approach was a careful curation emphasizing strengths and omitting faults. The confessional candidate treated the edTPA as a formative assessment; these candidates reflected on how missteps and predicaments promoted growth as a teacher. The misrepresentational approach characterized candidates as fabricating an image of themselves in the portfolio that does not represent their typical practice. Though there could be overlap between Meuwissen and Choppin's approaches, there are differences. For example, the sanitized approach is different from the misrepresentational approach because while candidates omitted their faults, the sanitized approach did not fabricate an image of the candidate not representative of their typical practice.

Albeit Meuwissen and Choppin's (2017) framework is useful and identified candidates' approaches to the edTPA, it did not investigate candidates' beliefs. Meuwissen and Choppin used this framework to suggest that the edTPA as a high-stakes standardized assessment was a less authentic indication of these candidates' teaching practice because the candidates'

representations are heavily influenced by their perception of what edTPA evaluators want. By less authentic they meant that there is a dichotomy between candidates' typical practice and what they represented on the edTPA. Their conclusion that "candidates' conceptions of teaching quality are at least somewhat contingent upon what is named and prioritized in a high-stakes test that only partially captures the construct's dimensions" (p. 606) is one possible explanation. It is possible that the assessment has the ability to implicitly shape candidates' conceptions of quality teaching. I looked at candidates' representations from a different angle. This angle, investigating the candidates' representations on the edTPA as they are related to their beliefs, provided a tentative corrective to the policy discourse around the edTPA that suggested the edTPA, as a high-stakes standardized assessment within an accountability discourse, caused a narrowing of candidates' conceptions of quality teaching. This discourse did not address the impact the complexity of the candidates' student teaching experience might have on candidates' edTPA portfolios.

While candidates' representations on the edTPA might reflect their conception of quality teaching (e.g., Ahmed, 2019), they are not necessarily corollary. The distinction between representation and conception is an important one to make in this instance. Representations are portrayals of things, people, or ideas. In the case of the edTPA, candidates portray their teaching on the edTPA. Conceptions are what one understands about or how one regards things, people, or ideas. People can accurately represent or misrepresent their conceptions.

Candidates' conceptions of quality teaching would have been better understood by asking about candidates' beliefs, not by analyzing their representations on the edTPA. Beliefs and conceptions are closely intertwined (Pajares, 1992). Therefore, when Meuwissen and Choppin gave evidence that candidates had adjusted their teaching, and possibly their representation of

their teaching, in order to fit what they perceived as the best way to pass the assessment, they had not explored candidates' conceptions of teaching quality. Meuwissen and Choppin gave evidence for representations not correlating to beliefs when they quoted candidates as saying, "I was finding myself using techniques whether or not they were appropriate in the moment … That was very teacher-centered. It wasn't about what the students need; it's about what I need for the assessment" (p. 602). It is clear the candidate believed quality teaching was something different than what they represented on the edTPA. Teaching toward the assessment might even be considered part of their teaching toolbelt. Similar to a methods class where candidates construct a robust and detailed plan most will not use as in-service teachers, the edTPA is asking candidates to jump through certain hoops. If one does not appreciate this analogy, then I suggest candidates adjusting their teaching for the edTPA is no different than what many teachers do when they have a scheduled observation by their administrator (Ledwell & Oyler, 2016). In these instances, teachers' adjustments were not a function of their beliefs about teaching and learning. Their adjustments were made to fit a particular requirement whether perceived or articulated by the administrator.

Rather than solely exploring student teachers' perspectives, this study not only asked how and why candidates represented their teaching in certain ways on the edTPA, but it investigated the relation between their responses on the edTPA to their beliefs about teaching and learning by asking the following questions:

1) What do student teachers say about what they decide to represent and demonstrate about teaching practice on the edTPA?

2) In what ways do their responses on the edTPA relate to their beliefs about teaching and learning?

At their heart, these questions were trying to investigate the relation between the teaching practices candidates represented on the assessment and their beliefs about teaching. How candidates explained this relation and the implications of this relation for teacher education programs, candidates, and the edTPA are the key dynamics of this dissertation. These questions build on Meuwissen and Choppin's (2017) research by addressing this gap. Understanding the relation between beliefs and representations on a gateway assessment has important implications for teacher education.

As I mentioned previously, Meuwissen and Choppin (2017) used their framework to suggest the edTPA as a high-stakes standardized assessment was a less authentic indication of these candidates' teaching practice because the candidates' representations were heavily influenced by their perception of what edTPA evaluators wanted. Though this might be true, Meuwissen and Choppin's conclusion did not help teacher educators understand whether candidates' depictions of their teaching practice on the edTPA were consistent with their beliefs about teaching. My study built on their work by exploring how candidates' responses related to their beliefs about teaching and learning and why candidates were aligned or incongruent.

The Study's Relevance

The research questions are relevant for the field of teacher education for several reasons. First, there was a gap investigating the relation between candidates' beliefs and their representations of teaching and learning on the edTPA. Studying teachers' beliefs is important because beliefs influence their classroom decisions and behaviors (Entwistle et al., 2000; Fives & Buehl, 2012; Pajares, 1992; Nespor, 1987) and are often considered precursors to future behavior (e.g., Pajares, 1992) or decisions (e.g., Bandura, 1986). Nespor (1987) described the context of teaching as an entangled domain and suggested teachers were especially likely to use

their beliefs to guide their action because of the complex and stressful nature of teaching. Pajares (1992) suggested theorists generally agreed that beliefs are socially constructed and developed through processes of enculturation. Their rootedness in practices of enculturation and social construction made them stable (Kagan, 1992) and difficult to change (Pajares, 1992; Wideen et al, 1998). Lortie (1975) and others (e.g., Buchmann, 1987; Wilson, 1990) have suggested pre-service teachers' beliefs about teaching were well established by the time they enter college. The strength of candidates' beliefs when they enter the program was one reason Pajares (1992) suggested researching the beliefs of preservice teachers when entering a teacher preparation program "would provide teacher educators with important information to help determine curricula and program direction" (p. 328). Richardson (2003) heightened the importance of knowing what candidates believe when she described the beliefs candidates "bring with them to the teacher education classroom are thought to be stumbling blocks in the reform of K-12 classroom instruction" (p. 2). It would seem just as important to know what candidates' beliefs were when they graduated from a teacher preparation program so the program can know if they had successfully overcome the stumbling block of candidates' initial beliefs. However, when researchers have investigated candidates' beliefs at the end of their programs, they often found that candidates' beliefs did not change between the beginning of their teacher education program and their completion of the program (Cochran-Smith,1991; Olson, 1995; Smith 1997; Tillema, 2000; Zeichner et al., 1987). Even when candidates' beliefs were found to have changed during their program, candidates reverted to their initial beliefs during student teaching (Cochran-Smith, 1991; Tillema, 2000). If candidates' beliefs "are thought to be stumbling blocks in the reform of K-12 classroom instruction" (Richardson, 2003, p. 2), then it would seem reforms would have to ensure beliefs aligned with what teacher educators felt were appropriate.

Since the literature was clear that beliefs and actions are related (e.g., Richardson & Placier, 2001), an investigation of the relation between portrayal of teaching practice and candidates' beliefs about teaching was warranted. This research built on Meuwissen and Choppin's research because the field did not know enough about how candidates represented their beliefs in high-stakes assessments. Not only was the edTPA still a relatively understudied research area, but research has not addressed how candidates' beliefs are represented on the edTPA. Relatedly, Clayton (in N. Henning et al., 2018) wrote that there is a lack of research eliciting candidates' perspectives on their student teaching experiences. Other studies such as Shin (2018) and Clayton (2018b), which typified the research touching on candidates' representations on the edTPA, hinted that representations and beliefs are different, but did not actually interrogate the relation of candidates' representation and beliefs. For example, Shin (2018) reported one candidate said, "Instead of focusing on making the best lessons possible for my students, I found myself more concerned about my tasks for edTPA" (2018, p. 2). It seemed from this statement that the student recognized a misalignment between their hopes for their teaching and possibly their beliefs about teaching. However, Shin concluded:

> The heavy focus on the completion of the edTPA tasks inhibits student teachers from taking an inquiry-based approach to learning; rather, they fall into compliance mode … It seems as though the edTPA is a disservice to our student teachers, as well as the young children in the classroom. Clearly, it is time to rethink the meaning of professionalization of the field and re-examine the edTPA experience in order to make it truly "educative." (p. 4)

Though his conclusion may have been true that candidates fell into compliance mode, the suggestion that the edTPA was doing a disservice to candidates might have been inaccurate. Shin

joins a list of researchers (e.g., Meuwissen & Choppin, 2017; Clayton, 2018a) who hinted that candidates' beliefs about teaching were not represented in their responses on the edTPA but did not actually investigate candidates' beliefs.

Clayton's (2018b) data provided similar hints as Shin's (2018) that candidates' representations and beliefs were misaligned. For example, Clayton quoted a candidate saying, "Pretty much in completing the edTPA I was doing what was required of me regardless if I thought it benefited my students and my classroom" (p. 21). However, similarly to Shin, she failed to interrogate this misalignment. Rather, she concluded the edTPA shaped candidates' representations and was a subtractive experience in the perspective of candidates. Rather than investigating the relation between candidates' beliefs and representation of teaching and learning, Clayton made suggestions about changing the high stakes of the assessment. Neither researcher investigated why a disjunction existed between students' beliefs and what they represented on the edTPA. My study built on these studies by investigating what candidates said about this incongruence. In addition, not accounting for the beliefs of their participants meant these studies were also unable to account for the agency candidates might have within high-stakes assessments. Though my study did not investigate agency explicitly, participants routinely discussed their agency when explaining the alignment or misalignment of their beliefs with their representations of teaching in the edTPA.

Second, the implications of this relation might be important for teacher education programs to consider. If a disjunction existed between candidates' represented practice and their beliefs, the question needed to be asked, why was is happening? A follow-up question needing attention after this initial question was, what was the meaning of this disjunction for candidates, the edTPA, teacher preparation programs, or/and the field as a whole? For example, Peck et al.

(2014) suggested one of the major benefits of the edTPA was its ability to inform preparation program outcomes, promote "deeper levels of communication, collaboration, and coherence, both within and across programs" (p. 23), and demonstrate improvement of practice. Yet, if the candidates' beliefs and representations on the edTPA did not align, it was more difficult to assess whether interpretations about edTPA scores promoted what Peck et al. suggested. Huston (2015), for example, cited two candidates in his research who described their responses as being tailored for a perceived audience. These same two candidates went on to describe their representations as not reflecting best practices. He concluded that they may not have represented their ideals about quality teaching, which seemed to suggest they might not have represented what they were taught in their preparation program. This left me wondering how preparation programs could evaluate their effectiveness accurately if candidates did not feel comfortable representing core practices on the edTPA.

Investigating candidates' beliefs about teaching and learning was not a new subject of investigation. Educational researchers have been studying teachers' beliefs for many years. However, a gap existed in the field investigating the connection between beliefs and what was represented on the edTPA. Learning more about the relation between beliefs and representation on the edTPA is beneficial for teacher education programs because programs may have a better understanding of how to interpret candidates' scores on the edTPA, have a better understanding of how to implement the edTPA, support candidates taking the edTPA, and induct their pre-service teachers into the teaching profession. This study sought to fill a gap within the literature and promote the professionalization of the field by investigating candidates' beliefs about teaching and learning related to their representations on the edTPA.

Chapter Two: Literature Review

The edTPA is more than an assessment. It has grown out of a particular political context and was created to be a central policy tool in the field of teacher preparation. Although a variety of topics exist within the literature related to the edTPA, all are connected in analysis, critique, reflection, or implications to the edTPA's development within certain discourses. This section gives an in-depth history of the edTPA's policy milieu from the perspective of policymakers and teacher educators. This context is important for justifying this study's investigation of the relation between candidates' representations on the edTPA and candidates' beliefs on quality teaching. It is also important because it gives direction to important implications of this study. This literature review situates the edTPA within its policy setting and then reviews two themes within the edTPA literature.

1) edTPA's implications and impact on programs and faculty
2) Candidates' understanding and perceptions of the assessment

These themes are two of the most prevalent in the edTPA literature. The literature review now turns to situate the edTPA within the discourses and policy contexts it exists.

Policy Milieu

Though performance assessments are often considered strong forms of evaluation (Popham, 2017), it is very likely that the edTPA's strength as an assessment was not the reason for its rapid adoption. Rather, its rapid adoption and widespread acceptance were driven by the converging interests of policy makers and the field of teacher education.[3] Policymakers were interested in applying objective measurements that could be used to assess whether teacher education was doing its job. Teacher educators were interested in professionalizing their field by

[3] A similar study on the rapid adoption of high standards during the 1990s was done by Weiner (2000).

changing the narrative around their public perception. Additionally, teacher educators recognized the converging interests of policy makers as an opportunity to control the measures used to hold the field accountable (Darling-Hammond & Hyler, 2013).

Policymakers

Parker (2011) identified the educational reform movement as a product of the derision narrative underlying perceptions about public schools. He suggested the narrative of a poor educational system has been used throughout the 20th and 21st centuries, from advocates of vocational education to Race to the Top, to push education reform. This denigration gained steam with *A Nation at Risk* in the early 1980s, and mushroomed in the early 1990s (Parker, 2011). During the 1990s it was used to emphasize external educational accountability (Earley, 2000). An emphasis on external accountability led policymakers to craft objective standards to measure school success. If schools were successfully held to standards in the K-12 system, then policymakers could apply similar forms of accountability to teacher education (Hutt et al., 2018; Tellez, 2003; Weiner, 2000). Weiner's study of educational reform during the 1990s demonstrated how pressure for reform was part of a convergence of "professionals and politicians." Teacher educators were part of the reform.

At a national level, reports such as the 1996 report of the National Commission on Teaching and America's Future's (NCTAF), called *What Matters Most: Teaching for America's Future*, and the reauthorized Higher Education Act (HEA) in 1998 provided evidence of the emphasis on accountability for the field of teaching and teacher education. The NCTAF suggested several barriers prevented the U.S. from achieving high-quality education for all students. Two of these barriers were "unenforced standards for teachers" and "major flaws in teacher preparation" (NCTAF, 1996, p. 10). Earley (2000) suggested the discourse around the

barriers manifested itself in five issues concerning teachers and teacher preparation programs. These issues became the focus of policymakers considering the reauthorization of the HEA and influenced what was included in its reauthorization (Earley, 2000). That these issues were focused on by federal policymakers suggests there was a national sense that teacher preparation programs were failing the public. For example, George Miller, US congressional representative, and the only Democrat speaking out on the need for greater teacher accountability during the HEA reauthorization process, even suggested the public had been defrauded by teacher preparation programs (Burd, 1998). Though Miller's suggestions for what should be included in the HEA's reauthorization were only partially adopted, the amendments of the HEA included Miller's emphasis on accountability.

When the HEA was reauthorized, it significantly strengthened the requirements related to accountability measures states needed to adopt for preparation programs to receive funding (Earley, 2000). For example, the new Title II required states and colleges of teacher education receiving federal funds to provide data, called an annual accountability report, to the U.S. Department of Education on teacher preparation standards and licensure.[4] This data could then be used to "hold institutions of higher education accountable for preparing teachers who have the necessary teaching skills and are highly competent in the academic content areas in which the teachers plan to teach" (HEA, n.d.).

At a state level, California was at the forefront of legislating TPAs in response to calls of accountability for teacher preparation programs in the late 1990s. This was nearly a decade earlier than most other states and corresponded with the passage of the HEA.[5] Holding the state's

[4] Previous initiatives in the field of teacher education had been in Title V. However, the reauthorized HEA in 1998 created a separate title for teacher education initiatives in Title II.

[5] I have not been able to find evidence that teacher educators or teacher preparation programs supported the passage of the bill.

teacher preparation programs accountable grew out of calls for accountability in the public education system started in the early 1990s from both conservative and liberal candidates for the state assembly (Voter Guide – State Assembly, 1992). These calls for accountability grew louder in light of California's ranking at the bottom of the nation in reading achievement according to the National Assessment of Educational Progress's (NAEP) *The Nation's Report Card* (Shields, 1999).

The San Juan Unified School District provided a localized example of the centrality the discourse of accountability during their 1994 School Board election. The theme of "accountability" was mentioned as a priority for four out of the five candidates (San Juan Unified School District, 1994). By 1998 the call for accountability finally reached teacher preparation programs in the state. Governor Pete Wilson suggested teachers were not coming out of their preparation programs adequately prepared (Wilson, 1998). By the end of 1998, the state had passed SB 2042, which was meant to promote accountability and teacher effectiveness. Bond's (2011) chapter in the Commission on Teacher Credentialing's (CTC) *A History of Policies and Forces Shaping California Teacher Credentialing* highlighted the critical role public and political pressure played in emphasizing accountability for teacher preparation programs in the 1990s and the passage of SB 2042. The CTC is responsible for accrediting teacher preparation programs, issuing credentials and permits for teachers to serve in California's public schools, and holds teacher preparation programs accountable (CTC, n.d.). It is part of the executive branch of California State Government.

The bill sponsored the creation of performance assessments meeting the CTC's standards for teacher preparation, which included a new evaluation system for teacher education (Pecheone & Chung, 2006), requiring pre-service teachers to complete a summative assessment evaluating

their teaching performance (Sato, 2014). Shields (1999) suggested the effect of these accountability measures on teacher preparation programs would be the strengthening the teaching profession in the state. Even after the passage of SB 2042, a California School Board representative said teacher preparation programs needed the same accountability public schools were having placed on them (Marinucci & Gunnison, 1998). Teacher education programs became the new target of calls for accountability. The passage of SB 2042 mandated teacher preparation programs used performance assessments as a measure for credentialing teacher candidates.

Performance assessments are a class of assessment lauded as being a critical strategy for developing teachers' expertise and enhancing the quality of teacher preparation (Darling-Hammond & Hyler, 2013; Pecheone & Chung, 2006; Selvester et al., 2006). Peck et al. (2014) suggested teacher performance assessments (TPA) also had a positive impact on teacher education programs because TPAs promoted a shared language and agenda for evaluation and improvement of practice within schools of education and programs. Both PACT and the edTPA are examples of portfolio performance assessments.

The initial result of SB 2042 was the creation of a performance assessment called the California Teacher Performance Assessment (CalTPA) by Educational Testing Services (ETS). However, concern over the CalTPA's generic design and involvement of ETS led to a consortium of teachers and eight teacher educator programs, led by Stanford University, to build the PACT (Performance Assessment for California Teachers) in 2002. These educators sought to strengthen the quality of teacher preparation using a standardized assessment instrument measuring teacher performance for licensure recommendations (Pecheone & Chung, 2006).

PACT was modeled after the National Board for Professional Teaching Standards' (NBPTS) performance assessment called National Board Certification (Sato, 2014). PACT and the edTPA both sought to simulate criterion situations. This means that the assessments put students in a position to demonstrate skills by completing certain real-world tasks within a simulation (Popham, 2017). The PACT has candidates construct a portfolio of lesson plans, analysis of students' work, videotape of their teaching, and reflection on the artifacts in the portfolio and teaching experience. These portfolios were supposed to provide the link in a chain of evidence between candidates' classroom performance and future pupils' performance as measured by standardized tests (Berlak, 2010). They were also supposed to link teachers' skills in the classroom with their skills to analyze/reflect upon/assess student learning and their own performance as a teacher (Sato, 2014). The PACT did not assess content knowledge because the state of California already had several content exams (Berlak, 2010; Sato, 2014). Teacher educators' participation in the creation of the PACT and eventually the edTPA was not only based on raising teacher effectiveness, but providing an assessment created by the profession for the state to use in its accountability discourse.

During the piloting of PACT in 2003-2004, survey results reported a majority of pre-service teachers learned important skills (Pecheone & Chung, 2006). There was also high inter-rater reliability (Pecheone & Chung, 2007). The high inter-rater reliability paired with the positive impact teacher candidates self-reported led many programs to adopt the assessment as the standard to graduate and receive a license.[6] Based on PACT's success and positive impact on teacher education programs (e.g., Chung, 2008), SCALE sought to develop an "updated," nationally accessible teacher performance assessment (Darling-Hammond, 2010b, p. 44).

[6] This background of the PACT does not discuss the contentious nature of the passing of SB 2042 nor the creation of the PACT. Though not discussed, PACT also had its detractors.

The edTPA was developed by the American Association of Colleges for Teacher Education (AACTE) and Stanford University faculty and staff at the Stanford Center for Assessment, Learning, and Equity (SCALE) (Sato, 2014). Its structure and assessment rubrics were modeled after the PACT. SCALE outsourced the administration of the test because it did not have the appropriate infrastructure to distribute materials and score the assessments (Robinson, 2013). Pearson was chosen over other education corporations because it provided the best package of operational and systemic capacity to distribute and score the assessment effectively and efficiently (Robinson, 2013). The development of the edTPA was relatively rapid because the AACTE and SCALE drew on the PACT model (Sato, 2014). Similar to PACT, the edTPA focused on real-world tasks needed for mastering something within a simulated situation. The edTPA website called the assessment a "performance-based, subject-specific assessment and support system … [used] to emphasize, measure, and support the skills and knowledge that all teachers need from Day 1 in the classroom" (edTPA). Supporters of these performance assessments noted that these were more authentic ways to assess readiness for teaching than traditional content or pedagogy assessments using selected and constructed response because the assessment required candidates "to actually demonstrate the knowledge and skills required" in the classroom (edTPA, n.d.). Agreed-upon successful teacher performances were not only possible (Darling-Hammond, 2006), they had the ability to provide meaningful analytics for "program renewal" (Haynes, 2013).

The edTPA assesses candidates' performance on three tasks: planning, instruction, and assessment, within a three- to five-day learning segment (SCALE, n.d.) during candidates' student teaching. Artifacts of these performance tasks, such as descriptions of the candidates' student teaching context, lesson plans, student work, feedback given, and video recordings of

candidates' teaching, are submitted to provide evidence of what took place. Candidates are then asked to analyze and reflect on these artifacts and their adjustments. SCALE suggested this portfolio provided the multiple measures needed to determine whether a candidate was prepared to enter the classroom (SCALE, n.d.). The AACTE considered the edTPA an effective tool for promoting rigor and accountability in the production of teacher quality (AACTE, n.d.).

The edTPA provides twenty-seven subject-specific assessments. Most subjects contain three tasks that have five rubrics each. In order to pass the assessment, teacher candidates must meet certain cut scores determined by the state or university in order to graduate or be granted a license. Some subjects have fewer rubrics and some subjects have more. For these differing rubrics, cut scores are adjusted. Some states do not require the edTPA for licensure but have preparation programs that require the edTPA for graduation. In these cases, the preparation program can evaluate the edTPA. Both states and universities can set the cut scores that candidates must surpass in order to graduate or be granted a license.[7] These scores often differ between states and universities. SCALE recommends a lower cut score during the initial implementation of the edTPA. These cut scores can then be raised to the professional performance standard (PPS) of 42 out of 75 (Hildebrandt & Swanson, 2014).

Once completed, candidates submit their assessment to Pearson for evaluation. Candidates pay $300 for the initial evaluation and pay additional amounts if they need to resubmit a portion of the assessment or redo the entire assessment. Evaluators are former teachers or teacher educators who have connections to the subject-specific assessment trained by Pearson. In states that do not require the edTPA for licensure, institutions may require the edTPA

[7] For most edTPA subjects there are three tasks that each have five rubrics. At IU, the cut score is not an average score. Rather, a candidate may only score a "1" out of "3" on a rubric within a task twice. These "1"s cannot be within the same task.

for graduation. In these instances, the institutions have the ability to have candidates submit the assessment to the university for grading.

Forty-one states and the District of Columbia are using the edTPA in some capacity. Some states have mandated the use of edTPA as a licensure requirement (e.g., New York, Washington, Illinois). Other states have allowed the edTPA to be one of several options for licensure (e.g., California) or as an optional assessment for program completion and recommendation for license (e.g., Iowa and Tennessee) (Reagan, 2016). There are also states that have not mandated use of the edTPA (e.g., Indiana and Ohio), but teacher preparation programs (e.g., Indiana University and Miami of Ohio University) within these states have implemented the edTPA.

Though the HEA had suggested accountability measures for teacher educators and teacher preparation programs in 1998, the turn towards high-stakes performance assessments as a product of the accountability discourse accelerated during Barack Obama's administration's implementation of the Race to the Top program. The Obama administration allocated significant funds for states that reformed their evaluation policies and systems of measurement of K-12 teachers' effectiveness and improved teacher education based on Race to the Top mandates (Bartlett et al., 2017). Bartlett et al. (2017) suggest this offer was based on a perceived lack of accountability in states' teacher preparation programs. The promise of federal dollars motivated several states to reform their licensure requirements. This atmosphere fostered the development of statewide data systems that were used to assess the effectiveness of teacher preparation programs. This amplified the attention on teacher preparation programs because teacher candidates had to be ready to enter a field where data could be used to assess their effectiveness.

By 2009, when Race to the Top was introduced, new states (e.g., New York) were seeking to use the edTPA as part of their Race to the Top application. New York and Washington were the first states to make the edTPA a compulsory high-stakes policy lever. It became a requirement for licensure in both states. Since that time at least five additional states – Connecticut, Georgia, Illinois, New Jersey, and Wisconsin – have joined New York and Washington to make the edTPA their exclusive licensure performance assessment. Other states have approved the edTPA alongside other performance assessments.

Both Illinois and Georgia passed legislation focusing on teacher preparation and licensure emphasizing teacher performance and effectiveness (Georgia Professional Standards Commission, 2014; Illinois State Board of Education, 2012, both as cited in Hildebrandt & Swanson, 2014). One group of researchers describes edTPA as one of a deluge of evaluations Race to the Top has spawned in the state of Georgia (Croft, et al., 2016). New York had already begun looking for a performance assessment to meet their need for evidence for Race to the Top prior to the adoption of the edTPA. Policymakers, particularly in the New York State Education Department, perceived a significant problem with teacher preparation programs. Hutt et al. (2018) offered the State Education Commissioner John King's own words in 2014 as evidence that the state thought part of the solution to the state's education problem was greater oversight of teacher preparation programs. King said, "New York is raising standards for students . . . the success of that effort requires that we demand just as much excellence from the educators who will teach them" (New York State Board of Education Department, 2014, as cited by Hutt el al., 2018, p. 57). Policies recommended included stringent external accountability measures on teacher preparation programs. These policies were approved in response to a 2010 directive from the Board of Regents to implement a performance assessment for licensure and as part of New

York's Race to the Top application (D'Agati, 2012). When the edTPA became available, New York state officials implemented the edTPA as evidence of raising the quality of their teacher certification examinations for their application for Race to the Top (Tuck & Gorlewski, 2016).

Teacher Educators

Teacher educators also supported the adoption of the edTPA. However, their support was in response to discourses that produced calls for accountability of schooling in the U.S. California, in the 1990s, and New York, in the early 2000s, are great examples of the manifestation of these negative discourses. At the same time teachers and teacher education have been under attack, teacher educators and teacher preparation programs have attempted to save their profession (Au. 2013; Hutt et al., 2018). By the time Race to the Top was reaching its full implementation, the edTPA was also being developed by SCALE. The discourse of professionalization underlying teacher educators and teacher preparation programs' support for the edTPA was seen clearly in how the creators of the edTPA sold the adoption of the TPA to their colleagues and how teacher educators and teacher preparation programs recommend states adopt the edTPA.

Though proponents of the edTPA frequently discussed its ability to develop teachers' expertise and improve the quality of teacher preparation, they moved quickly to suggest to their audience of teacher educators that the edTPA had the ability to solve one of education's longest running problems, professionalizing the field (Darling-Hammond, 2012; Darling-Hammond & Hyler, 2013; Peck et al., 2014; Robinson, 2013; Sato, 2014). Labaree (2004) would have agreed this professionalization problem had undermined teachers and teaching for many years. Darling-Hammond, one of the edTPA's creators, was the most outspoken about the promise of the edTPA to professionalizing the field. She believed "real" education reform will be developed by

the profession (2012). In several of her own writings **(**Darling-Hammond, 2012; Darling-Hammond & Hyler, 2013**)** and in the writings of other proponents **(**edTPA, n.d.; Peck et al., 2014; Robinson, 2013; Sato, 2014**),** the edTPA was considered the tool to raise the field of education to the level of the law and medical professions.

According to Darling-Hammond and Hyler (2013), professions were defined by three characteristics.

1) Professions were morally committed to the welfare of those they served
2) Professions shared a common body of knowledge and skills
3) Professions defined, transmitted, and enforced standards of professional practice (p. 12)

The edTPA promotes these characteristics because it builds an agreed-upon set of performance expectations. Supporters of the edTPA's ability to help professionalize the field pointed out that agreed-upon performance expectations might produce more accurate predictions of a teacher candidate's future success, keep external micromanaging of the field at bay, rebuild public trust in the field, and possibly stymie the narrative of ineffective teacher preparation programs (Darling-Hammond and Hyler, 2013; Peck et al, 2014; Sato, 2014). This in turn would increase the independence of the field and its economic status. Darling-Hammond and others (Pecheone & Chung, 2006, Robinson, 2013) who helped create the PACT and then the edTPA saw an opportunity in the early 2000s in California, and then in the late 2000s nationally, to promote the professionalization of the field (Sato, 2014). For example, Peck et al. (2014) noted that using standardized performance assessments in teacher preparation programs could create a shared language, agenda, and direction. Darling-Hammond (2010a) suggested such assessments of teacher performance could provide specific information about contextualized teacher behaviors and student outcomes that informed stakeholders of the extent to which professional standards

were being met. This was supported by several studies and reports reviewing programmatic implementation of the edTPA (Lys et al., 2014; Countryman & Stone, 2015; Ledwell & Oyler, 2016). This coherence in the profession would also contribute to the building of a common expectation of the foundational knowledge and skills base candidates would learn. The theme of professionalizing the field was not only seen within proponents' support of the assessment, but in the stories of how several states chose the edTPA as the form of accountability for teacher preparation programs. It was clear from the conversations around the edTPA's adoption or implementation that teacher educators and teacher preparation programs used evidence of the TPA's ability to professionalize the field as reasons for their support.

Two states, Wisconsin and Georgia, provided examples of how teachers and teacher educators promoted the edTPA's adoption. Hanley-Maxwell and Wycoff-Horn (2017) reflected on their experience recommending the edTPA for adoption by the state of Wisconsin. They were part of a workgroup consisting of twelve deans, directors, or associate deans representing the UW system and private colleges along with five members from the Professional Development and Licensing Team (TEPDL) of the Wisconsin Department of Public instruction (DPI)[8], and one state superintendent. The composition of the group was important because it demonstrated that the TEPDL, a state policy making organization, included teacher educators and teacher preparation programs. It also demonstrated that teacher educators and teacher preparation programs found value in the edTPA.

In Georgia, Fenton and Wetherington (2016) also provided evidence of teacher educators' explicit belief that the edTPA could professionalize the field. As they tell the story of Georgia's adoption of the edTPA, they highlighted the positive experiences that preparation

[8] The Department of Public Instruction is the state agency that advances public education and libraries in Wisconsin.

programs had in implementing the assessment. These experiences included the promotion of a common body of knowledge and skills and the supporting of teacher preparation programs' and educators' ability to define, transmit, and enforce standards themselves. Darling-Hammond and Hyler (2013) would suggest these positive outcomes are characteristics of professions. Based on the experiences of the Georgia teacher preparation programs and some additional investigation, the Georgia Professional Standards Commission (GaPSC) promoted the edTPA as a licensure option in the state.[9] It is clear from these two states' adoption of the edTPA that the teacher educators who supported its adoption were strongly influenced by its ability to professionalize the field.

Despite many teacher educators' support of the edTPA's creation and adoption, there were examples of teacher educators speaking against or resisting its adoption (e.g., Price, 2016; An, 2016). Resistance from teacher educators seemed especially strong in New York (e.g., Tuck & Gorlewski, 2016; Greenblatt, 2017), but this might have been connected to state policy makers' unilateral action to adopt the assessment. Notwithstanding resistance to the edTPA's adoption, the narrative of the convergence of policymakers' and teacher educators' interests above highlighted the way calls for accountability and hopes for professionalization defined the context in which the edTPA was created and implemented.

edTPA's Implications and Impacts on Faculty and Programs

Many sources used teacher educators' voices to build cases for or against the edTPA. For example, Tuck and Gorlewski (2016), Attick and Boyles (2016), Dover and Schultz (2016), and

[9] The GaPSC was created by the Georgia General Assembly on July 1, 1991. It is responsible for the preparation, certification, and professional conduct of certified personnel employed in the Georgia public schools (GaPSC website). It is generally composed of educators, including teachers, administrators, regional service agencies, educational organizations, the Georgia DoE, teacher preparation programs, and others.

Sato (2014) reported on their own or other teacher educators' perspectives to situate the edTPA as supporting or hindering particular discourses. Research that explored programmatic implications are predominantly institutional case studies or reflexive self-analyses. Lys et al. (2014), Lachuk and Koellner (2015), and Countryman and Stone (2015) were examples of teacher educators who reflected on or described their program's implementation of the edTPA. Studies such as Cronenberg et al., (2016) An, (2016), and Donovan and Canon (2018) were examples of research that reflected on the edTPA's impact on their own practices and relationships. Other studies, such as Ratner and Kolman (2016) and An (2017) used the teacher educator's perspective to understand the impact of the edTPA on programs after it had been implemented. Nearly every study that elicited teacher educators' perspectives identified both positive and negative impacts of the edTPA on themselves or their program. Though teacher educators clearly have mixed feelings and experiences with the edTPA, the fact that nearly every study found positive impacts stemming from the edTPA's adoption suggested the edTPA has the ability to promote the professionalization of the field and better teacher education programs. The literature review now turns to highlight these sources' findings.

Research Concluding the edTPA Promotes Alignment Within or Between Programs/Courses

Reflexive analyses such as Lys et al. (2014) and reports such as Countryman and Stone (2015) suggested the edTPA promoted alignment within and between programs. For example, Lys et al. observed the "edTPA's common language fostered discussions across programs" and "faculty members are developing their own academic language around the edTPA that links conceptual and skill development throughout the teacher education curriculum and across content areas" (p. 7). However, these sources also documented resistance by faculty against the implementation of the edTPA (Lys et al., 2014; Ledwell & Oyler, 2016; An, 2017).

Even when studies (e.g., An, 2017; Lys et al., 2014; Ledwell & Oyler, 2016) and reports (e.g., Countryman & Stone, 2015) described teacher educators' resistance to the edTPA, they frequently concluded teacher educators had found the edTPA promoted integration within the program and therefore improved their programs. Lachuk and Koellner (2015) provided evidence that this was true by suggesting the edTPA was the catalyst for identifying the need for greater alignment between candidates' course and fieldwork experiences. Though this conclusion was born out of tensions found within their implementation of the edTPA, the edTPA as a high-stakes assessment magnified the need for preparation programs to examine the cohesion among their coursework, practicums, and graduation requirements. Ratner and Kolman (2016) described a heightened interest of faculty to work together and collaborate between courses because of the edTPA. These studies provided evidence that Hanley-Maxwell and Wycliff-Horn (2017) were correct in suggesting the edTPA could play a role in helping programs align their coursework and promote greater faculty conversation and engagement.

Research Concluding the edTPA Promotes Better Teacher Educators

Some studies found teacher educators recognized how the presence of the edTPA promoted their improved teaching. For example, An (2016) suggested her attitude of denial towards the edTPA was not only destructive to her students but made her a less effective teacher. By changing her attitude to constructively resist the edTPA, she took up the same type of attitude she hoped to instill in her own candidates who faced increased standardization in their future elementary classrooms. Although she did not support the edTPA, the edTPA's presence caused her to examine her teaching and whether it aligned with her goals. She concluded her new teaching was "more relevant" (p. 25) for her students because it addressed their concerns about the edTPA and taught them how to constructively resist accountability structures in their

educational contexts. Students affirmed her conclusions in the course feedback after the change. Cronenberg et al. (2016) also felt they became better teacher educators because they were forced to emphasize to candidates how to evaluate student learning. Ratner and Kolman (2016) reported the edTPA gave them "a more precise and thorough understanding of what our students know" and developed "insights about how [their] courses have succeeded, as well as failed, to prepare candidates for teaching" (p. 22). The teacher educators' voices heard in these studies suggested the edTPA had the ability to help teacher educators become more reflexive, pay more attention to candidate feedback, and clarify what has been learned by candidates in their classes. These findings suggested that the edTPA had the potential to be useful for teacher educators to improve their practice.

Research Concluding edTPA Promotes the Narrowing of Curriculum

Despite these positive perspectives of the edTPA's impact, teacher educators also described negative experiences with the edTPA. These negative experiences included feeling pressured to teach to the test (e.g., An, 2016, 2017; Cronenberg et al., 2016) and feeling as if the complexity of teaching were lost (e.g., Cronenberg et al., 2016; Ledwell & Oyler, 2016). Though Cronenberg et al. (2016) felt the edTPA helped them emphasize how to evaluate students' learning, they also felt the edTPA caused them to be more concerned with candidates passing the edTPA because that was their students' concern. Their self-analyses suggested the edTPA marginalized conversations around the "larger ontological and epistemological questions which teacher candidates should be grappling" (p. 15). Ledwell and Oyler (2016) reported a similar sentiment from the teacher educators they interviewed. The high-stakes nature of the edTPA caused them to focus on the completion of the edTPA rather than helping candidates develop certain complex pedagogical moves. On some level these concerns were similar to what An

(2016) found through her course feedback. However, An took a more positive approach to how this pressure could make her a better educator.

An (2017) suggested the high-stakes, standardized, and outsourced evaluation promoted the narrowing of curriculum because educators were forced to decide between preparing candidates for the edTPA and teaching the content of their courses. This finding mirrored the findings in her self-study (2016) where she discussed the tension of initially ignoring the edTPA and then teaching candidates how to constructively resist something analogous to the edTPA. Even in that study, it was clear An was unable to fully address the complexities of teaching social studies as she had been able to before the implementation of the edTPA. However, An (2016) and Cronnenberg et al.'s (2016) responses to the pressure of the edTPA to narrow curriculum informed the implications of this study. An responded by taking up a constructive resistance that she then teaches her students. Cronnenberg et al. resigned to lament the role of the edTPA. Though An's candidates were concerned about passing the edTPA, she used the experience to help teach candidates in her class how to teach within standardized high-stakes contexts. This might lead to An's candidates representing something on the edTPA that they do not normally do, while at the same time believing and being able to articulate the difference between their representation and what they believe quality teaching to be. It could also result in what Ahmed (2019) found, where candidates' used the edTPA as a tool of resistance in a constrained student teaching context. These were important examples of ways forward for teacher education programs.

Research Concluding the edTPA Was Ineffective

Research concluding the edTPA was ineffective often cited the lack of feedback provided by Pearson (e.g., Ledwell & Oyler, 2016), the inequitable nature of the test (e.g., Ratner &

Kolman, 2016; Tuck & Gorlewski, 2016), or that the edTPA hurt teaching relationships between professors and candidates and candidates and students (e.g., Cronenberg et al, 2016). Ledwell and Oyler (2016) found educators were frustrated with lack of feedback in Pearson's evaluations. The edTPA had been promoted as a source of information for programs to make adjustments. However, the lack of feedback given to candidates on the edTPA hindered candidates' learning and educators' own ability to know why their candidates were or were not successful on the edTPA. They also concluded based on teacher educators' interviews and review of scores on the edTPA that the edTPA did not always serve as the gatekeeper for the profession, nor as a curriculum change agent within the programs. They even suggested the edTPA may be biased toward for candidates who are predominantly white, middle-class, native English speakers, and those experienced with academic writing. If this is true, then it was a faulty gatekeeper. This was similar to Ratner and Kolman's (2016) report of some teacher educators' concerns and Tuck and Gorlewski's (2016) analysis of the edTPA that certain placements were considered advantageous for passing the edTPA. Ratner and Kolman's study interviewed urban teacher educators who reported concerns amongst their students about teaching in urban or more difficult teaching contexts. Particularly, teacher educators reported candidates believed urban schools might hinder their ability to demonstrate the type of effective teaching the edTPA defined. An (2017), after surveying elementary social studies teacher educators, reported similar concerns about the reifying of one version of teacher education knowledge and the possible harm to multicultural education efforts. Despite these negative critiques, An also found some teacher educators believed the assessment was an authentic measure of candidates' abilities. Siegel et al. (2019) even found that teacher educators who had positive perceptions of the edTPA were concerned about issues of equity and inclusion related to the edTPA. Cronenberg et al. (2016) reported the

edTPA negatively transformed candidate and teacher educators' relationships. These relationships became less collegial and more transactional. This caused one teacher educator in the study to feel overwhelmed and at a loss for how to balance the rules guiding their support of students and what students needed. These sources' concern for the effectiveness of the edTPA demonstrated a need for developing a better understanding of candidates' representations on the edTPA and how these representations related to their beliefs about teaching.

It is clear from the studies investigating the edTPA's impact on programs and faculty through the lens of teacher educators that differing perspectives on and experiences with the edTPA existed. Nearly every study that elicited teacher educators' perspectives or performed a reflexive study as a teacher educator identified both positive and negative impacts of the edTPA on themselves or their program. Though many found positive aspects of the edTPA, they also had negative conceptions of or experiences with the edTPA. These findings were similar to the expectations of Tuck and Gorlewski (2016), Attick and Boyles (2016), and Dover and Schultz (2016). About half of the positive experiences and perspectives related to the edTPA itself. For example, Ratner and Kolman (2016) reported the edTPA helped clarify what students knew. In comparison, teacher educators' negative experiences were most often directed at the implementation process, not the assessment. For example, Cronenberg et al. report the edTPA hurt their relationships with students. Though less meaningful relationships were a consequence of the edTPA itself, they were really critiquing the high-stakes standardized implementation of the assessment. However, these high stakes had also resulted in positive movements within programs such as better alignment between program and faculty (Lys et al., 2014; Countryman & Stone, 2015; Lachuk & Koellner, 2015). Teacher educators' negative experiences often developed from recognizing candidates needed more support completing the edTPA and help

considering the complexities of teaching the edTPA did not measure (Burns et al., 2015; An, 2016; Cronenberg et al., 2016).

However, it is possible that neither the edTPA nor teacher educators were at fault. Even when studies, such as Ratner and Kolman (2016), provided evidence that teacher educators were worried about the scoring process, this should not be construed as a critique of the assessment itself. Rather, their evidence might suggest that programs were not doing a good job of communicating the breadth of representations the edTPA allowed as Sato (2014) suggested. Sources that investigated teacher educators' perspectives and voices saw benefits in the edTPA but struggled with its processes of implementation or the purpose to which it was put to use as a gateway assessment. This suggests that preparation programs were not doing a good job of communicating with or supporting their candidates and faculty. It might also suggest, as Ledwell and Oyler (2016) proposed, that teacher educators did not receive enough feedback from Pearson and therefore did not know enough about what candidates believed about teaching to make appropriate adjustments to their courses or program.

Candidates Relations With the edTPA

I have broken studies investigating candidates' relations with the edTPA into two empirical research categories.

1) Candidates' Experiences and Perceptions
2) Candidates' Representations

Most of these sources investigated candidates' experiences (e.g., Greenblatt, 2017) or elicited their perspectives in order to better understand the impact of the edTPA on candidates (e.g., Langlie, 2015). Of these sources, several assessed more specific elements of the edTPA: for example, its ability to be formative or the effects of its implementation. The second category,

Candidates' Representations, has not been widely researched. No studies existed explicitly connecting their representations and their beliefs.

Research on Candidates' Experiences

Since its piloting, researchers have researched the experiences and perspectives of candidates completing the edTPA. This section of the literature moves chronologically to demonstrate how candidates' experiences and perspectives have been researched and used to draw conclusions about policy, the assessment, preparation programs, and school districts. Oftentimes these studies used experiences and perspectives synonymously. However, there is a distinction between the two words. Experiences are events of which one is cognizant. Perspectives are views or opinions about a subject. Studies that solely focused on candidates' experiences often drew on professors', supervisors', or cooperating teachers' perspectives (e.g., Margolis & Doring, 2013; Greenblatt, 2017; Paugh et al., 2018). Nearly all of the studies made a similar claim with their data: candidates experienced or perceived the edTPA in both positive and negative ways. Though some studies (e.g., Meuwissen and Choppin, 2015) were more equivocal in drawing a conclusion about the edTPA as being positive or negative, most suggested that despite some positive benefits, the edTPA was a negative experience or had a negative impact on candidates. Only a handful of studies critiqued the edTPA itself or suggested the edTPA needed to change. Rather, most studies critiqued the implementation of the edTPA, primarily at the national or state level, but a few at the local university level.

Margolis and Doring (2013) provided one of the earliest studies of candidates' experiences on the edTPA. The researchers focused their qualitative research on the lived experience of student teachers, mentor teachers, and university supervisors during the pilot implementation of one university in Washington state. Their research questions sought to

understand which aspects of the edTPA the student teacher, cooperating teacher, and university supervisor found most helpful and most problematic in promoting the growth of the student teacher and K-12 student learning. Findings included some potential benefits of the edTPA, including eight of ten student teachers reporting the edTPA promoted deeper reflection on their teaching episodes and student thinking in their classrooms. The university supervisors in the study affirmed candidates had become more reflective. Positive findings similar to these were found throughout the literature (e.g., Clayton, 2018a, 2018b; Seelke, 2018; Paugh et al., 2018; even Chiu, 2014). However, Margolis and Doring, similar to the research to follow, primarily focused on negative impacts of the edTPA. Candidates expressed frustration with the additional load of work and communication between the program and the school regarding the edTPA. In their conclusion, Margolis and Doring suggested the edTPA was trying to do too much too quickly because student teachers were asked to exhibit skills that practicing teachers do not have to demonstrate.

The following year, Chiu (2014) published a reflection of her experience with the edTPA as a teacher candidate. In her reflection she described the edTPA as a painful experience that undermined her own learning, critical reflection, and narrowed her teacher education courses. She also raised concerns about the lack of explicit evaluation of social justice concerns and the evaluators of the edTPA. However, she identified several things she learned by having to complete the edTPA. These included backward design of lesson planning, reflexivity, and how to identify whole class' and individuals' learning patterns. Though her reflection was highly critical of the edTPA, her suggestion that the experience was educative in some ways was consistent with the literature in the field.

In 2015 there were several studies investigating candidates' experiences (e.g., Huston, 2015) or perspectives: Clayton (2015), Coloma (2015), Langlie (2015), Meuwissen et al. (2015), and Meuwissen and Choppin (2015). Greenblatt and O'Hara (2015) mentioned candidates' perspectives briefly, but it is not until Greenblatt's writing a year or two later where she focused on candidates. Meuwissen et al.'s (2015) study is an important contribution to this sub-theme in the literature because it provided data collected through mixed methods with a large group of participants. The study used a survey and interviews of candidates in Washington and New York states. This study was also the foundation for Meuwissen and Choppin's (2015) analysis of candidates' perspectives with the edTPA and their chapter in 2017. They interpreted their data to suggest that candidates in New York were more troubled by the implementation of the edTPA, as compared to candidates in Washington state, than they were by the tasks or imposition of having to complete the edTPA. Though they suggested most candidates had negative perceptions about the edTPA, candidates in Washington state generally had more positive perceptions of the assessment. Overall, despite positive findings that 46% of candidates believed the edTPA was consistent with their conception of quality teaching and 44% felt the edTPA aligned with the goals of their preparation program, the study also found 80% of candidates considered the edTPA's goals were unclear and 85% believed it was unfair. It was clear that candidates had positive and negative conceptions of the edTPA. Meuwissen et al. interpreted the negative impact to be a component of the edTPA's implementation rather than its content or goal.

Huston (2015) and Coloma (2015) were the first to look at the edTPA in contexts where the assessment was not being piloted or mandated by the state. This nuance in their participants allowed the field to compare different types of implementation and support for candidates. Both studies found candidates to have positive and negative experiences and perceptions of some parts

of the edTPA. However, as one looks through their findings, the candidates were most often concerned with peripheral issues to the assessment itself. For example, Huston (2015) points out candidates struggled to interpret the handbook, adapt edTPA requirements to their setting, or were apprehensive about the evaluators' ambiguity. None of these concerns were about the assessment itself. In fact, Huston suggested candidates reported they grew in their understanding of their own teaching and developed an appreciation for the complexity of teaching because of the edTPA. Coloma (2015) found 93% of candidates thought the edTPA did not fairly measure their preparedness to teach. This negative perspective was primarily based on the idea that candidates felt the edTPA was measuring their writing or ability to cater to a rubric, rather than their skills as teachers. However, Coloma also reported candidates found the edTPA to be useful because it reminded them to consider academic language and students' backgrounds. Whether the edTPA was mandated by a state or is locally administered by a university, the same issues arose. Candidates lacked understanding about the purpose of the edTPA and freedom to represent their teaching within the edTPA. These sources gave evidence that a lack of communication about and understanding of the assessment existed. Therefore, rather than suggest the edTPA was the problem, it might be that the preparation programs (and this could have been an issue of rapid implementation in some states) have not done enough to prepare candidates for the assessment.

Meuwissen and Choppin's (2015) analysis of the data from Meuwissen et al.'s (2015) study suggested the above statement might be true. Candidates were more focused and had trouble with navigating the administrative and technical demands of the edTPA rather than improving their practice. Consistent with Huston's (2015) findings, Meuwissen and Choppin also found candidates worried about how they should represent their teaching because of their

lack of knowledge about their audience. Meuwissen and Choppin suggested candidates had these experiences because of the edTPA's high stakes for their futures. Huston drew a similar conclusion after studying candidates in a lower-stakes setting. Huston and Meuwissen and Choppin's findings suggested candidates expressed having difficult or negative experiences with the edTPA in high-stakes and low-stakes settings. Meuwissen and Choppin also suggested high stakes promoted candidates' production of a mediating strategy that promoted more reflexivity and better analytical writing. Clayton (2015) found this to be true as well when investigating candidates' perspectives. Though some of the participants in Clayton's study suggested the edTPA was subtractive, meaning that it negatively impacted their student teaching experience, others suggested it was reflective and educative. Based on the findings across the board, Meuwissen and Choppin (2015) were correct to have suggested preparation programs need to shed light on the edTPA's policy context in order that candidates understand the purpose of the assessment, while also better supporting candidates to help them mediate the tension of a high-stakes exam that may have divergent expectations and demands.

Over the next three years, 2016-2018, studies produced similar findings. Behney (2016) investigated the impact of cooperating teachers' on the performance of candidates completing the foreign language edTPA. The findings of the study revealed candidates consistently expressed tension between trying to meet their cooperating teacher's expectations and the edTPA's expectations. Greenblatt (2017) performed a mixed methods study that was the first to specifically investigate urban candidates' perspectives and experiences. The findings concluded that candidates had varying experiences based on their support, demographics, preparation program, and placement. These peripheral issues affected candidates' experiences with the edTPA and student teaching. Though not related directly to this study, one of Greenblatt's most

important findings was that student teaching in urban districts might have made passing the edTPA more challenging. Relatedly, Gitomer et al. (2019) found the edTPA held a similar challenge for Latinx teacher candidates. Despite not appearing to be directly connected to this study, Greenblatt's finding that candidates had chosen not to do student teaching in urban settings is important because it suggested contexts impact candidates' representations on the edTPA. Together, Greenblatt and Behney's studies raised the concern that certain contexts of teaching might have made it more difficult for candidates to pass or represent their beliefs about teaching on the edTPA.

Other studies investigated candidates' perspectives and experiences for different reasons. Paugh et al. (2018), Helton (2018), and Kessler (2018) used candidates' perspectives to investigate the edTPA as an assessment. Paugh et al. investigated the edTPA's claims that it was a formative and summative assessment. Using Likert Scale surveys, the researchers asked candidates to report on the edTPA's contribution to their student teaching experience. They also analyzed candidates' portfolios and semi-structured interviews with focus groups consisting of either candidates or program supervisors. Though they found candidates identified the edTPA's role in their development as a teacher, for example the edTPA "provided a platform for connecting planning, teaching, and assessment[s]" (p.153), they also found candidates suggested the experience was frustrating and restrictive. Their research also revealed that adjustments teacher educators made, such as including an assignment in candidates' student teaching seminar that emphasized investigating the culturally and linguistic backgrounds of their students, were identified as by candidates as helpful. Paugh et al. concluded the edTPA was not effective as a formative assessment because of the way the assessment is executed during student teaching. The lack of quality targeted feedback for the candidate to reflect upon and adjust their future

teaching prevented the edTPA from being formative. Their observation about the lack of feedback was similar to Ledwell and Oyler (2016) and Chandler-Olcott and Fleming's (2017) conclusions after looking at teacher educators or field supervisors and cooperating teachers. Interestingly, Paugh et al.'s conclusion about the usefulness of the edTPA as a formative assessment differed from Helton (2018).

Helton (2018) investigated the perceptions of pre-service music teachers' perceptions of the formative elements of the edTPA via a survey. Similar to Paugh et al. (2018), Helton found candidates had both positive and negative experiences with the edTPA. The most important finding in Helton's work was the observation that candidates' perspectives were unlikely to change from before taking the edTPA and after completing the edTPA. In the study Helton administered a survey at the beginning of candidates' student teaching and after completing the edTPA. The results of the survey gave evidence that candidates with positive perceptions of the edTPA and its formative elements were likely to have similar perceptions at the end of the assessment. Candidates with negative conceptions at the beginning of their student teaching about the assessment's formative elements were also unchanging. Though Helton provided evidence that some candidates' perceptions changed, there was a lack of consistency in this change. One of the major implications of my study concerns the way preparation programs should speak about and integrate the edTPA into their programs. Helton's study gave evidence of the need for preparation programs to help candidates develop more positive outlooks on the possible transformation the edTPA can encourage in their teaching through reflexivity and planning.

Using three case studies, Kessler (2018) investigated candidates' perspectives on two assessment frameworks. This study bridged the themes of the edTPA's impacts on teaching and

studies that used candidates' perspectives to evaluate the edTPA. Kessler concluded the formative and summative ends of both the edTPA and Danielson Framework might not work cooperatively with one another because of the assessments' implementation. Based on the study's data, Kessler concluded the edTPA narrowed the complexity of teaching and that the lack of specific feedback undermined its ability to be a formative assessment. The tension between its summative and formative goals resulted in candidates teaching in ways Kessler identified as performative. This meant candidates changed their teaching for the assessments. Constructing a similar framework to Meuwissen and Choppin (2017), she identified candidates' representations of their teaching as spectacle, cynical compliance, or playing a game. Kessler did not move to ask candidates if their representations were similar or divergent from their beliefs about teaching. Though the study made several suggestions about what teacher education might do to address issues of professionalization, the study did not make any suggestions at how preparation programs might help candidates better understand the role assessments analogous to the edTPA and Danielson Framework might play in professionalizing the field or helping candidates become better teachers.

It is clear from these three sources that candidates had differing experiences with the edTPA and perspectives of its ability as an assessment. Only Kessler (2018) made a connection between the edTPA as a summative assessment and candidates' performativity as a student teacher. Though this finding was related to representation on the assessment, I have categorized Kessler's study as part of this sub-theme because the focus of the study was on the comparison of two assessments rather than on the candidates' representations. Kessler's study provided further evidence that candidates were adjusting their normal teaching pedagogies or personae. Comparable to other studies in the literature, it did not move further to consider the alignment of

candidates' beliefs to their teaching for or representations of their teaching on the edTPA. The other studies continued to solidify the idea that candidates have mixed experiences with the edTPA. Helton's (2018) study also provided a way forward for future research. In the study Helton suggested these mixed experiences have been predetermined by candidates' attitudes towards the assessment. Similarly, Clayton (2018b) suggested the way preparation programs addressed candidates' preconceived notions might greatly impact the ability of the edTPA to be a positive experience.

Clayton (2018a, 2018b) published two articles out of the same data set. In Clayton (2015, 2018a) the data were organized to assess student teachers' perceptions of the edTPA. In those papers Clayton categorized their perception as reflective, educative, mandated, and/or subtractive. The student teachers found their student teaching experience were narrowed because of their focus on completing the high stakes edTPA. The initial presentation of these findings in 2015 and then published in 2018 led her to explore the change of student teachers' experiences over the first three semesters of edTPA as a licensure exam (2018b). Using surveys and interviews of the candidates, she suggested teacher candidates' perceptions of the alignment between the edTPA and teacher education program improved over time. The findings also suggested candidates still felt the experience was negative. That candidates' perceptions improved over time was an important finding when considering what Meuwissen and Choppin (2015), Huston (2015), and Helton (2018) suggested. When considering the critiques of research that discussed the edTPA within the current educational climate, Clayton's finding suggested preparation programs, not the edTPA, might be primarily at fault. Since preparation programs might have had significant influence on candidates' perceptions of and experiences with the

edTPA, it seems Clayton's findings suggested the better job teacher preparation programs do at preparing and informing candidates, the better the candidates' experiences become.

Seelke (2018) found similar mixed results when interviewing in-service teachers who had completed the edTPA. Unlike the previous studies reviewed, Seelke took a new approach to investigating the impact of the edTPA. Rather than elicit candidates' perspectives, Seelke investigated the perspectives of in-service teachers who completed the edTPA. I have included this study under candidates' perspectives because it provides unique data for preparation programs to consider in comparison to studies performed with candidates. The study relates to Clayton's (2018b) study that suggested candidates' perceptions became more positive over time. Seelke concluded in-service teachers thought that the edTPA was educative and influential in their current practices around planning, instruction, and assessment. However, the in-service teachers also suggested their districts in which they taught also affected its positive impact. Some in-service teachers felt district policies hindered the ability to implement some of the edTPA's student-centered practices and therefore the assessment was not as impactful for them.

It is interesting to see how Clayton (2018a, 2018b) and Seelke (2018) reached different conclusions about the positivity of the edTPA based on candidates' perceptions. Seelke concluded that the edTPA, similar to the National Board Certification, was an educative experience. Clayton (2018a), on the other hand, concluded that the edTPA might "offer less a clear picture of a candidate's ability … and more the candidate's capacity to negotiate … experiences of the edTPA during student teaching" (p. 117). Despite their differences, they may both be right. The edTPA could be an overall positive experience as Seelke suggested, but as Clayton suggested, might not have offered clarity of what candidates had learned or could do. As Fives and Buehl (2012) suggested, asking why candidates' beliefs and practices did not align is

more useful than investigating whether they aligned. Asking why candidates' teaching on the edTPA was not aligned with their beliefs was at the center of the present study's investigation of the relation between candidates' representations on the edTPA and their beliefs about quality teaching.

Research on Candidates' Representations

Strategies of how to pass the edTPA have been a concern since Denton (2013) published his research investigating high and low performance submissions. When reviewing these submissions, Denton suggested certain patterns of representation scored more highly on the edTPA than others. For example, candidates that scripted their interactions with students scored higher on the assessment. Though teacher educators and those critiquing the edTPA as the embodiment of the educational policy were raising this concern, this was the first report that candidates were purposefully adjusting their portfolios on the edTPA.

Not until Meuwissen and Choppin (2017) used the data from the earlier Meuwissen et al. (2015) study had anyone explicitly investigated how and why candidates decided to represent their teaching on the edTPA. Though Clayton (2018a, 2018b) and Kessler (2018) recognized that candidates cultivated specific representations of their teaching on the edTPA, these studies did not focus on candidates' representations like Meuwissen and Choppin (2017). Studies mentioning representations suggested this was an important avenue of investigation because of the edTPA's policy context, its use as a gatekeeping tool into the profession, and the possibility that the edTPA simplified teaching's complexity. Meuwissen and Choppin (2017) suggested most candidates perceived the edTPA measured credible components of teaching. However, they also reported some candidates felt uneasy about their representations because of their belief that the assessment did not evaluate their ability to demonstrate "the construct of teaching as fully as

possible" (p. 603). Candidates who understood the edTPA as sampling their skills and practices in a limited way did not articulate uneasiness with how their teaching was represented.

Meuwissen and Choppin were the only study that addressed candidates' representations in any way. Many other studies mentioned that candidates adjusted their representations or struggled to represent their teaching on the edTPA, but none provided the research focusing on the analysis of candidates' representations. Having analyzed candidates' explanations of their representations, Meuwissen and Choppin concluded that candidates' portfolios were a less "authentic indication of their practices than an indication of how they [candidates] interpret and respond to required performance criteria" (605).[10] Based on their findings, they concluded that the edTPA, situated in its current climate of accountability, reduced the enactment of quality teaching to a technical performance rather than a complex practice. They also suggested that candidates' perceptions of quality teaching are somewhat contingent on the edTPA's construction. However, it was not clear how candidates' beliefs about quality teaching were related to the edTPA. It was clear from their own study that some candidates experienced more or less tension in their representations depending on their perception of what the edTPA sought to measure, but Meuwissen and Choppin did not explicitly investigate the connection between candidates' beliefs and their representations.

This study picks up where Meuwissen and Choppin had left off by more closely examining candidates' beliefs about teaching and their representation on the edTPA. Not only was I interested in how these were related, but I was also interested in how their beliefs about quality teaching were related to their understanding of what the edTPA was seeking to measure. Although studying the edTPA in a lower-stakes edTPA (i.e., the edTPA implemented by

[10] See page 8 for a discussion of these four approaches.

preparation programs as a graduation requirement rather than implemented by states as a licensure exam) might cause pause, it was clear from the literature that whether the edTPA was implemented by states or by a preparation program, candidates had conflicted perspectives about the usefulness and impact of the edTPA. Therefore, this study provided the next step in considering the role of the edTPA in preparation programs and programs' effectiveness at initiating candidates into a complex profession.

Next Steps

Having told the story of the building of the edTPA, placed it in its policy milieu, and reviewed the literature on the assessment's impact on programs and faculty and candidates' perspectives about the edTPA, the next step included having an understanding how candidates' beliefs about teaching and learning relate to their representations of teaching and learning on the edTPA. Knowing whether candidates' beliefs and representations are aligned is important for teacher education programs to know because beliefs are understood to impact future action (Bandura, 1986; Fives & Buehl, 2012, 2016; Nespor, 1987; Pajares, 1992). This is why the methodology for this study employed elicitation techniques such as metaphor analysis and stimulated recall. These types of elicitation techniques provided insight into the relation between candidates' beliefs and actions.

The implications of uncovering the relation between candidates' beliefs and representations might be that the edTPA was found to be neither good nor bad in a binary way as an assessment, but that Indiana University and teacher preparation programs in general needed to do a better job of informing candidates about the edTPA or integrating and situating the assessment into its coursework. Preparation programs might need to reconsider how they help candidates articulate the core practices programs emphasize and hope candidates enact as

teachers and how this may be similar or different from what they represent on the edTPA. As Zeichner (2010) pointed out, a disconnect often exists between university coursework and candidates' field experiences. Some scholars might feel that this ignores or rejects their conclusions that the assessment narrows curriculum, empowers neoliberal ideologies, or undermines candidates learning experiences. Scholars who raised these concerns have good reasons to suggest these critiques are true and should not be ignored. For example, the test is being used in a way that brings its consequential validity into question. However, many of these critiques focused more on its implementation and use than on the assessment itself. Only a handful directly critiqued the assessment (e.g., Tuck & Gorlewski, 2016). Yet, there are good reasons we need an assessment such as the edTPA, as Peck et al. (2014) suggested. There is clearly a need for a tool that effectively distinguishes between those prepared to become teachers and those needing more training (Raths & Lyman, 2003).

In response to the edTPA's critics, Sato (2014) pointed out that the edTPA gives space for many forms of quality teaching to be expressed. Citing an unpublished study by Hyler et al. (2013) and anecdotal analysis (e.g., Lynn, 2014), Sato suggested the edTPA aligned with critics' concerns for emphasizing social justice and did not ignore the role social justice played in effective teaching. For example, Hyler et al. (2013) asserted a significant majority of the field test version of the Secondary Mathematics Handbook provided candidates with opportunities or directly prompted them to represent elements of Ladson-Billings' (1995) culturally relevant pedagogy (CRP). Ladson-Billings' CRP is considered a seminal idea in the field for helping teachers challenge deficit paradigms which often are implicit. Lynn (2014; n.d.) suggested the edTPA's rubrics specifically evaluated if candidates hold deficit conceptions of students, but nevertheless he did not provide any examples. Based on arguments analogous to these,

supporters suggested the edTPA's intention was worthwhile and good (Darling-Hammond & Hyler, 2013; Robinson, 2013; Lynn, 2014; Sato, 2014). Liu and Milman (2013) also pointed out the assessment did not attempt to measure all components of what it means to be an effective teacher. The assessment was not designed to be an end-all assessment of teacher candidates. Rather, it provided flexibility to value different dispositional stances (Liu and Milman, 2013; Hyler, et al., 2013). Understanding the relation between why candidates represented their practice and their beliefs about teaching in certain ways was the next step in this field of research.

The first chapter already suggested that beliefs of teachers were important because teachers' beliefs can filter, frame, and guide teachers' classroom decisions and behaviors (Buehl & Beck, 2014; Fives & Buehl, 2012, 2016; Pajares, 1992; Nespor, 1987) and were excellent predictors of future decisions (Bandura, 1986). Nespor suggested teachers were especially likely to use their beliefs to guide their action because of the complex and stressful nature of teaching. Despite the wide acceptance of these conclusions, the enactment of beliefs is also extremely complex. Their embodiment is significantly impacted by their contexts. The incongruence between beliefs and practices are not only caused by constraining contexts but competing beliefs might also exist (Fives & Buehl, 2012). In fact, research on teachers' beliefs has not always concluded a clear link exists between beliefs and actions (e.g., Lee et al., 2006; Stipek & Byler, 1997). However, Fives and Buehl (2012) suggested studies should not dismiss beliefs as a topic of research because of their inconsistent alignment with teachers' practices. Rather, they concluded studies should investigate why this incongruence existed because findings from the field of research on teachers' beliefs have demonstrated beliefs filter, frame, and guide teachers' practices. In addition, since beliefs are related to teachers' practices, they ultimately have an

impact on student outcomes (Fives & Buehl, 2012). This study used Richardson's (2003) summarization of Green's (1971) definition that "beliefs are propositions that are accepted as true by the individual holding the belief, but they do not require epistemic warrant" (Richardson, 2003, p. 3).

Empirical studies about teachers' beliefs have been conducted for at least sixty-seven years (Oliver, 1953). Borg (2018) and Skott (2014)[11] suggested there are several differing motivations for studying beliefs.

1) Helps educational stakeholders understand teachers and teaching
2) Facilitates educations reform
3) Supports teacher learning

These motivations have resulted in a variety of studies into teachers' beliefs. Fives and Buehl (2012) categorized the literature on teachers' beliefs into four categories: the nature of beliefs, the function of beliefs, the relation of beliefs to practice, and how and when beliefs change. Studies investigating the nature of teachers' beliefs have often focused on the implicit (e.g., Kagan, 1992; Osisioma & Moscovici, 2008) or explicit (e.g., Basturkmen et al., 2004; Rimm-Kaufman et al., 2006) nature of beliefs. This focus generally guided a study's methodology. For example, if a researcher assumed beliefs are explicit, they generally used an interview protocol. If assumed to be implicit, studies analyzed teachers' enacted beliefs (e.g., observation of lessons or examined lesson plans). If researchers assumed beliefs are both implicit and explicit, they frequently combined these methods as Munby (1987) and Pajares (1992) suggested. Other studies that investigated the nature of teachers' beliefs have found teachers' beliefs existed along a continuum of stability, beliefs are activated by context demands, beliefs and knowledge are

[11] Skott (2014) only identifies the first two motivations as providing justification for studying teachers' beliefs.

interwoven, and beliefs are best understood as an integrated system (Fives & Buehl, 2012). Studies investigating the function of teachers' beliefs have found teachers' beliefs filter (e.g., Gates, 2006; Nisbett & Ross, 1980), frame (e.g., Gates, 2006; Nespor, 1987; Yadav & Koehler, 2007), and guide (Bandura, 1997; Tschannen-Moran et al., 1998) teacher practices.

Studies that investigated change in teachers' beliefs have been consistently inconsistent (Fives et al., 2014). Sometimes researchers found beliefs changed and sometimes not. Fives and Buehl (2012) grouped the literature investigating change in beliefs into three groups based on their focus: developmental changes (e.g., Brownlee, 2003; Levin & Wadmany, 2006; Simmons et al., 1999), changes in preservice teachers' beliefs (e.g., Brownlee & Chak, 2007; Fives, et al., 2007; Knoblauch & Hoy, 2008; Yerrick and Hoving, 2003), and changes in practicing teachers' beliefs (Barlow & Cates, 2006; Magos, 2006). When these studies' findings are synthesized, the studies found teachers' beliefs are not only complex, but they are difficult to change, and that change is dependent on multiple factors. These factors included the goal of the change in beliefs, the length and nature of the exposure to things like professional developments or classes, and internal and external factors to the teacher.

Studies that investigated the relation between beliefs and practice examined the relation in different content areas (e.g., Enyedy et al., 2006; Powers et al., 2006; Chen, 2008), pedagogical practices (e.g., Sahin et al., 2002; Akcay, 2007), or regarding orientations towards learning (e.g., Lim & Chai, 2008). Fives and Buehl (2012) suggested studies finding incongruence between beliefs and practices should not conclude beliefs are not related to practices (e.g., Lee et al., 2006; Stipek & Byler, 1997). Rather, studies should have investigated why incongruence between beliefs and practices existed. Studies often identified internal (e.g., Ackay, 2007; Windschitl, 2002; King et al., 2001; Nathan & Koedinger, 2000) and external (e.g.,

Kim et al., 2005; Brown et al., 2008; Barkatsas & Malone, 2005; Powers et al., 2006) supports and challenges to belief implementation. For example, Ackay (2007) studied a teacher whose practices did not align with their beliefs about teaching. Ackay identified the teacher as not having an accurate understanding of a pedagogical technique. It took a year-long professional development intervention for the science teacher to better align their beliefs and practices. The present study fits under the category of studies investigating "the relations of beliefs to practice."

The present study drew on several strands of the literature Fives and Buehl (2012) identified to suggest studying candidates' beliefs were important because of their role filtering, framing, and guiding teacher practices. Beliefs are complex. Teachers hold a variety of beliefs about teaching and learning and some of these beliefs may be incongruent (Fives et al., 2014). The difference between beliefs and practices should lead researchers to ask why incongruence exists rather than concluding beliefs and practices are not related. Incongruence between beliefs and practices are a result of both internal and external factors to the individual constraining or promoting alignment.

Chapter Three: Methodology

This study used semi-structured interviews to elicit candidates' perspectives about two things.

1) What do student teachers say about what they decided to represent and demonstrate about teaching practice on the edTPA?
2) In what ways do their responses on the edTPA relate to their beliefs about teaching and learning?

The literature review demonstrated that research addressing candidates' perspectives exists. Though several reflective accounts of candidates' perspectives have been published (e.g., Chiu, 2014; Kuranishi & Oyler, 2017), there has been little research addressing candidates' perspectives about the representations of their teaching practice on the edTPA and nothing investigating the relation between their representations and their beliefs about teaching and learning.

Why Qualitative?

This study was inherently qualitative because it dealt with what Taylor et al. (2015) described as descriptive data. This type of data is characterized by the elicitation of participant's own understanding of their words, spoken or written, behavior, and beliefs. Munby (1984) suggested qualitative methodology was a legitimate approach to understanding teachers' beliefs because it gave voice to participants and honored the complexity of individuals in ways quantitative research did not. Yin (2010) described the aim of depicting a complex social world through understanding others' perspectives and voice as a fundamental objective of qualitative research. Olafson et al. (2014) suggested qualitative research was ideally suited for investigating the complexity of teachers' beliefs. Hearing candidates' voices, including asking them to discuss

their beliefs, has the potential to help teacher educators to understand their own practice (Jennet & Affleck, 1998). Kincheloe (1991) described research eliciting students' voices, in this case candidates' voices, as "a cardinal tenet of good teaching" (p. 16). Though he was talking about the teacher as researcher, his point is relevant for teacher educators as well. By hearing candidates' voices, teacher educators would better understand what candidates believe about teaching and learning and how these beliefs relate to their representations of teaching on an assessment meant to act as a gateway into the field. Not only will knowledge of these beliefs help teacher educators be better educators and design more effective classes in shaping candidates' beliefs, but it might give teacher educators ideas on how to adjust the implementation of a gateway assessment similar to the edTPA.

Theoretical Framework

Teachers' beliefs influence their classroom decisions and behaviors (Fives & Buehl, 2012, 2016; Pajares, 1992; Nespor, 1987) and are excellent predictors of future decisions (Bandura, 1986). Nespor suggests teachers were especially likely to use their beliefs to guide their actions because of the complex and stressful nature of teaching.[12] Researchers reviewing the literature about beliefs often pointed out the lack of clarity surrounding a study's definition of belief (e.g., Borg, 2018; Fives & Buehl, 2012; Richardson, 2003). Pajares suggested theorists generally agree that beliefs are socially constructed and developed through processes of enculturation. Their rootedness in practices of enculturation and social construction made them stable (Kagan, 1992), difficult to change (Pajares, 1992; Wideen et al, 1998). Lortie (1975) and Lortie (1975) and others (e.g., Buchmann, 1987; Wilson, 1990) suggested pre-service teachers' beliefs about teaching were well established by the time they enter college. Though researchers

[12] Nespor (1987) calls the context of teaching an *entangled domain.*

concluded teachers' beliefs were excellent predictors of future decisions and behaviors, they also suggested internal and external factors impacted teachers' ability to implement their beliefs (Fives & Buehl, 2012).

The fact that implementation of beliefs is impacted by internal and external factors is a problem when studying beliefs because it suggests that knowing participants' beliefs may not accurately predict one's future behavior, preparedness, or intentions. Therefore, researchers such as Munby (1982) and Pajares (1992) suggest that both beliefs and practices should be studied together. Munby claimed nearly forty years ago that either the methodological instrument or model was poorly chosen if a study did not demonstrate the relation between beliefs and behaviors of teachers. Pajares (1992) pointed out that "reasonable inferences about beliefs require assessments of what individuals say, intend, and do, then teachers' verbal expressions, predispositions to action, and teaching behaviors must all be included in assessments of beliefs" (p. 327). He then moved to critique belief inventories as not being satisfactory for this type of research because they did not take into account the contexts beliefs become actions. Uzuntiryaki et al.'s (2010) study was a good example of a study that followed Munby's and Pajares' suggestions. They performed semi-structured interviews, observations in the classroom, and analysis of lesson plans in order to connect beliefs and practices. This allowed them to better understand how internal and external factors might prevent teachers from implementing their beliefs in the classroom. However, Uzuntiryaki et al.'s framework for understanding beliefs was limited because they only recognized beliefs as either influencing practice or disconnected from practice. Buehl and Beck (2014) suggested there are four perspectives concerning the way teachers' beliefs and practices are related.

1) Beliefs influence practice

2) Practice influences beliefs
3) Teachers' beliefs are disconnected from their practices
4) Reciprocal, but complex, relations between teachers' beliefs and practices

Their fourth perspective provided the theoretical framework for this study and encompasses the first three perspectives. This perspective recognized the complex relation between people and their contexts. It also allowed for variation between individuals and contexts. It identified how internal and external factors influenced the relation between beliefs and practices and that these contexts had the ability to promote connection and disconnection between beliefs and practices. This fourth perspective also provided space for recognizing the implicit and explicit nature of beliefs. Fives and Buehl (2012) defined explicit and implicit beliefs as "understandings of which individuals are conscious (explicit) or unaware (implicit or tacit) (p. 473).

Literature addressing teachers' beliefs generally assumed beliefs are implicit (Fives & Buehl, 2012). However, studies (e.g., Rimm-Kaufman et al., 2006) and conceptual literature (Dewey, 1933) exist that acknowledged ways in which beliefs are explicit. When studies have not addressed both the implicit and explicit nature of beliefs, Fives and Buehl (2012) suggested these studies are weak. For example, studies that only investigated implicit beliefs limited the research from making connections to teachers' practice. Studies that only investigated explicit beliefs in enacted settings (e.g., observation in the classroom) left the researcher exposed to drawing conclusions that might not take into account why participants' enactments took particular forms (e.g., a teacher's context). Lastly, Fives and Buehl pointed out that by using metaphor analysis, implicit beliefs were made explicit. They suggested this could change the nature of belief, but do not detail what this change entailed for the beliefs. Rather, they suggested

this change in nature of beliefs changed the types of elicitation techniques a researcher might use. Recognizing the implicit and explicit nature of beliefs and the complex nature of the relation between beliefs and practices shaped the methodology of this study.

Methodologies

Data for this study was collected through two semi-structured interviews. Taylor et al. (2015) proposed interviews were an excellent way to learn about things not observable. Though candidates' representations in the edTPA portfolio were observable, their decision-making process on what to represent was hidden. The assumption was that internal processes could become observable and people were able to reflect on their internal processes and verbalize these processes (Gass & Mackey, 2000) through interviews. Although qualitative interviews were often described as consisting of broad and open-ended questions (Yin, 2016), Barton (2015) pointed out that solely asking broad and open-ended questions was often ineffective. Cooke (1994) suggested interviews were well-suited to the initial phases of knowledge elicitation because they helped develop rapport and seemed more natural. However, similar to Barton, Cooke described unstructured interviews as "often unwieldy and difficult to interpret" (p. 813-814). He suggested a more structured interview provided more complete coverage of the intended topic. Richards and Morse (2013) suggested semi-structured interviews were more suitable when the researcher had the ability to develop appropriate techniques and questions for the interview because they had significant experience with the topic and literature. Since the researcher of the present study had significant experience with the edTPA and the literature around the edTPA, as well as with literature in the field of teachers' beliefs, a semi-structured interview was fitting. In addition, the semi-structured interview protocols allowed participants to make connections the researcher might not have considered.

Therefore, it was important to pick elicitation techniques that provided both structure and space for participants to shape the interviews. This more flexible structure promoted the participants' voices rather than the researcher's voice. In the first interview, the study used metaphor analysis to focus on candidates' beliefs about teaching and learning. In the second interview, the study used stimulated recall to structure the interview. This second interview focused on candidates' representations of their teaching on the edTPA and how these related to their beliefs expressed in the first interview. By using these techniques, the study heeded Barton (2015) and Cooke's (1994) concern of avoiding unfocused and ineffective interviews. Simultaneously, the techniques provided space for the participants to influence the direction of the interview and prevented the researcher's ideas from influencing responses. Constructed response interview questions were only used at the end of the interviews to clarify previously stated metaphors, ideas, or explanations. Barton also suggested using these elicitation techniques might make the research process more transparent to participants and thus promoted participants' understanding of the research's purpose. In turn, the participants felt more comfortable in the interview process (Cooke, 1994) and were less likely to sanitize or overstate their beliefs.

Metaphor Analysis

Metaphors and beliefs are intimately related to one another. Gurney (1995) suggested that metaphors ground one's understanding of the world. Often metaphors are the most verbal and explicit expression of tacit beliefs. Saban et al. (2006) argued metaphors can act as evidence of pre-service teachers' understanding of teaching and learning. Similarly, Munby (1986, 1987) suggested metaphors revealed teachers' construction of their professional reality. This made an elicitation technique such as metaphor analysis particularly useful when trying to understand beliefs.

Though metaphor analysis has taken different shapes, most often metaphor analysis was done using questionnaires or surveys (Bullough, 2014). However, this has been critiqued for the possibility of influencing participants' responses. Alger (2009) suggested metaphor analysis could be paired with different methodologies; examples included observation, open-ended interviews, analysis of autobiographies, and journal entries. Its strength as an elicitation technique included its ability to reveal tacit beliefs, generate responses easily, simplify experience, and enable comparison. The technique also had weaknesses. A single metaphor was unable capture a participants' beliefs in totality (Sfard, 1998). Some participants might have generated superficial metaphors or struggled to generate a metaphor (Bullough & Stokes, 1994). Researchers and participants might not have shared the same meaning behind the metaphor (Alger, 2009). To utilize the strengths of this technique while mitigating the weaknesses, this study paired two adapted portions of differing metaphor analysis techniques with a task from Munby's (1984) Repertory Grid Technique. The two adapted metaphor analysis techniques included Fives and Buehl's (2008) *Open-Ended Teaching Belief Questionnaire* and Alger's (2009) textual descriptions of metaphors from a survey (See Appendix A). By combining and adapting these two protocols for an interview, the protocol mitigated some of the concerns listed above. However, the study also heeded Munby's (1984) warning about responses being a construction of the researcher and not the participant's responses by using Alger's metaphors and definitions as a clarifying and comparative tool at the end rather than the beginning or middle of the protocol.

Therefore, after reviewing the purpose and scope of the study with the candidate, the first interview started by asking candidates to create a metaphor that described their belief about teaching. Then candidates were asked to perform the first task in Munby's Repertory Grid

Technique (1984) (See Appendix A). This task elicited participants' thoughts on planning and teaching by asking candidates to discuss their vision for teaching in an ideal classroom. Candidates were then asked to compare these representations of their ideal teaching to their metaphor.

Several questions from Fives and Buehl's (2008) *Open-Ended Teaching Belief Questionnaire*, which primarily focused on assessing teachers' beliefs about knowledge and teaching ability, followed. These open-ended questions allowed candidates to speak about teaching in general and their own understanding of teaching and learning. These types of open-ended questions allowed for candidates to have their voice heard and prevented the researcher's conceptions of teaching and learning from shaping candidates' responses (See Appendix A).

Though these structures and questions provided rich data, there was still the concern that several weaknesses of using metaphor analysis had not been addressed (e.g., participants generated superficial metaphors or struggled to come up with a metaphor). Though this happened several times, the study found participants were able to construct a metaphor after discussing their ideal teaching. Alger's (2009) textual descriptions of metaphors were used at the end of the first interview to clarify the participants' beliefs and situated their metaphor within the literature on teachers' metaphors about their beliefs. Alger's instrument was developed by synthesizing 1,053 metaphors found in research eliciting metaphors from teachers about teaching and teachers. Based on the frequency of overlapping meanings, Alger created six overarching metaphors. The methodology section of her 2009 article provided a table organizing several of these studies and provided examples of teachers' metaphors for each overarching metaphor. For example, she categorized metaphors such as teacher as trail guide, director, conductor under the overarching metaphor *Teaching is Guiding*. The examples on this table (p. 745) were used to

help code and organize the language and metaphors the candidates shared. Each of Alger's overarching metaphors also had a succinct definition (p. 744, 746). These definitions helped mitigate several of the weaknesses mentioned above. By using the overarching metaphors' provided definitions, the researcher and participants clarified and shared the same understanding of what the participant created.

Sfard's (1998) concern that a single metaphor did not capture a participant's beliefs in totality was addressed in two ways. First, I ensured my own conceptions of teaching, nor Alger's (2009) metaphors, influenced candidates' metaphors. Candidates built their metaphor at the beginning of the first interview. Munby's (1984) task and Fives and Buehl's (2008) adapted questions gave the researcher additional insight into the beliefs of candidates. Responses to these questions provided clarification about the candidates' metaphors. Candidates were then asked to use Alger's (2009) metaphors and definitions, which gave the researcher a better understanding of candidates' meaning and conception behind their metaphor. It also allowed for more general comparisons with other studies about metaphors about teachers' beliefs.

Stimulated Recall

Stimulated recall has been in use as an elicitation technique for a number of years. One of the earliest studies using stimulated recall investigated university students' thinking about lectures by listening to audiotapes of the lectures (Bloom, 1953). The method was used as a way to gain access to the hidden thought processes of participants. Barton (2015) suggested that this type of technique was useful to uncover implicit theories and tacit beliefs participants held related to the object of stimulation. Similarly, Marland and Osborne (1990) suggested stimulated recall could reveal the implicit theories and tacit beliefs of teachers and their principles, tactics, and role conceptions. They called this a teacher's theory of action. A teacher's theory of action

explained why the teacher chose one course of action over another. Knowing the participants' theories of action helped answer this study's research question regarding how participants' beliefs related to their representations. Dempsey (2010) suggested stimulated recall brought participants closer to the moment of when the action was produced. Since edTPA portfolios were generally constructed over several weeks and could be constructed during or even several weeks after a candidate taught the focus lessons, bringing participants close to the moment of when the portfolio and the teaching occurred was important.

Research with stimulated recall has been most frequently done using video recordings (Lyle, 2003). However, this study used candidates' edTPA portfolios as the stimuli for recall. Gass and Mackey (2000) and Calderhead (1981) both suggested written material could be used as the stimuli. The present study resembled Jennet and Affleck's (1998) study using stimulated recall with medical professionals because it used written material as stimuli. Despite not using video recall, Jennet and Affleck's study implicitly provided evidence that stimulated recall using written stimuli could be an effective way to promote recall in participants and understand participants' decision-making thought processes. One difference between this study and Jennet and Affleck's study was that this study investigated the chart's contents (candidates' representations), not candidates' decisions based on the charts.

However, no matter the form of stimuli, Gass and Mackey (2000) suggested the stimulus of recall should be strong. Strength of a stimulated recall procedure was determined by having multiple forms of stimuli supporting the recall. Since edTPA portfolios included written analysis, lesson plans, lesson artifacts, and video of candidates' teaching, the stimulus supporting recall was inherently strong. Calderhead (1981) even suggested lesson plans might help address concerns raised by de Groot (1965), Sharp and Green (1975), Hargreaves et al. (1975), and

Richardson (1996). These researchers were concerned that everyday activities were underlined by tacit beliefs that might not be understood by participants, much less able to be verbalized by the participants. Basturkmen et al. (2004) went one step further and suggested participants might be unwilling to express less socially desirable beliefs. In response, Calderhead suggested the idea that lesson plans, as the stimuli for recall, might access the cognitive process behind the lesson plan's development because the plans were created consciously and deliberately. In the case of the edTPA, the stakes of the assessment added to the strength of it as a stimuli because it required more focused attention from participants and therefore was in some ways resistant to critiques of stimulated recall. The edTPA portfolio as a whole was an effective stimuli to access the cognitive processes of the candidates because participants described conscious and deliberate decision-making processes.

For this study, candidates submitted digital copies of their edTPA portfolio to me. The planning commentaries, context for learning, lesson plans, artifacts, and videos were read or watched. Throughout, I marked a copy of participants' edTPA with specific questions or thoughts about the portfolio and looked for statements and ideas that seemed related to the data found in the first interview. For example, I probed from alignment or misalignment between candidates' beliefs and representations. Whether misalignment or alignment was identified, I pulled four excerpts from their edTPA portfolio for participants to read through. These excerpts were identified as places the participants clearly discussed their teaching. During the second interview, I then asked the participants to identify whether the excerpt was aligned or misaligned with their beliefs about teaching. This was especially important if candidates' representations and beliefs were misaligned. When misalignment was identified by participants, I asked how

they would bring their teaching into alignment and what it would require for them to bring their teaching into alignment with their beliefs.

Before the interview began, participants were given information about the study, its purpose, and its goals (See Appendix B for stimulated recall protocol). The stimulated recall had what Gass and Mackey (2000) called a low structure in order that the candidates were the ones guiding the stimulated recall process. They were able to guide what they shared, when they shared, and how often they shared. Some participants moved more quickly through the provided excerpts. In these cases, the researcher drew them to reflect on previously identified questions the researcher had about their representations in relation to their beliefs. This was not considered a high-structured recall event because the researcher did not have full control over the process of the recall. By adopting a low structure within a semi-structured interview, I gained the benefit of the participants feeling comfortable in the interview setting while also not producing unfocused or ineffective data. Ineffective data could have been produced if candidates felt as if I was looking for a particular "right answer" concerning their beliefs or representations of their teaching. Stimulated recall helped mitigate this concern because it allowed participants to see the direction of the research as well as provided a tangible prompt for explaining and justifying their representations on the edTPA as related to their beliefs about teaching and learning.

Participants

Though sampling selection is often considered simplistic and linear, this is a mischaracterization of its true complexity and importance in one's research (Reybold et al., 2012). Besides needing participants for a qualitative study, the process of selection and its justification is important because it demonstrates what might be particular about a study and its implications (Glesne, 2006). The choices researchers make about who participates in a study

reveal, whether tacitly or explicitly, what the researchers believe is important to perceive (Peshkin, 2001). Essentially, who participates makes a statement about what data should be recorded. The importance and value of selection sampling complicated this study's selection justification. For example, if random sampling was used, the complexity of contextual factors (e.g., race, socioeconomic status, support, age, writing ability) might have affected the generalizability of the study's findings. Additionally, random sampling could have reduced potential biases of the researcher on the sampling procedures. A complicating factor of using random sampling was the difficulty in accessing potential participants. Federal regulations restricted my access to students' information, including who had taken the edTPA. These restrictions prevented me from being able to access any lists of potential participants. Therefore, this study used a convenience sample. To find additional participants the study used the snowball procedure method. Though the snowball procedure was originally used to explore social networks (e.g., Coleman, 1958; Goodman, 1961), it has also been used to locate participants in difficult to access populations (Biernacki & Waldorf, 1981).

Patton (1990) suggested purposeful sampling was the most effective way to obtain rich data. However, due to restrictive access to candidates' records, I was forced to use convenience sampling. I had proposed to recruit ten participants. Other studies seeking to understand candidates' perspectives on the edTPA through qualitative methods had as few as three participants (e.g., Kessler, 2018) or twenty or more participants (e.g., Meuwissen et al., 2015; Seelke, 2018). I started by asking several former students who had recently completed the edTPA to be participants in the study. After contacting several former students who had expressed interest in being a part of the study, the recruiting process slowed. In order to find additional participants, I emailed all of my former students and had several colleagues email

their former students. Eventually, I found nine participants who participated in the study. Eight of the nine were former students. I did not have any participants drop out in the midst of the study. The present study chose not to make a distinction in identity markers of participants in the initial selection process. However, the study did draw on participants' identities, backgrounds, and experiences with schooling to better understand their beliefs about teaching and learning.

One of the possible limitations of this study was the use of convenience sampling. Though some qualitative researchers have suggested convenience sampling is a second best choice when selecting a sampling method (Flick, 2007), that a convenience sample is likely to be biased (Mackey & Gass, 2005), or that it may produce information poor studies (Merriam & Tisdell, 2016), I found that the use of convenience sampling produced an unintended benefit to the quality of this study. I initially attempted to recruit students I did and did not have a previous relationship with. However, eight of the nine participants ended up being former students who I had built positive and supportive relationships with after leaving my undergraduate courses. This meant I already had a strong rapport with them, which would have been more difficult to develop with randomly selected participants. I believe these previous relationships promoted participants to be more open, honest, and reflective in their interviews. The one participant who I did not know previously was recruited through my snowball procedure and was convinced to participate based on the recommendation of one of my former students who was a participant. Consequently, I felt we had a strong rapport because her friend was also participating in the study. Having a strong rapport with the participants in this study was important because Barton (2015), Lyle (2003), O'Brien (1993), and Tuckwell (1980) all suggested an elicitation technique like stimulated recall required strong rapport with participants in order that they did not feel as if they were performing for the researcher. The more comfortable candidates felt, the more likely it

was they would be forthright in their interviews. Using convenience sampling to recruit participants resulted in finding participants that already had a strong rapport with me. Because of my inability to use a more randomized sampling method this study cannot make statistical generalizations, but it has performed an in-depth analysis of the relation between candidates' beliefs of teaching and learning and their representations on the edTPA.

During my initial recruiting process, I asked my participants if they knew of other candidates, some who passed or did not pass on their first attempt, who might be willing to participate in the present study. Other studies (e.g., Burroughs, 2001) selected participants who passed and did not pass in order to draw comparisons between participants. Through the snowball procedure I was introduced to several candidates who did not pass the edTPA on their first attempt. Though I attempted to recruit these candidates, they decided not to participate in this study. Therefore, this study was unable to make these comparisons because each participant passed the edTPA on their first try and did not investigate the relation between candidates' beliefs and representations with whether or not they passed.

Although I was most familiar with the secondary social studies and English language arts edTPA portfolios, the edTPA had the same overall structure and similarly themed prompts throughout its subject variations. Therefore, I believed including candidates outside of these two subjects was not problematic. Literature on core practices and beliefs of successful teachers has not necessarily differentiated between younger and older students or between two subjects. For example, whether a teacher was student-centered or held a certain epistemological position about learning (e.g., constructivism, behaviorism, or cognitivism) did not depend on the subject taught or ages of students. Even when studies (e.g., Kang & Zinger, 2017) looked at a specific discipline, the studies used generalized core practices for critique. Therefore, this study did not

prevent specific subjects of edTPA from participating. In fact, the diversity of participants' edTPA subjects provided an opportunity to make claims about the common constraints across grade levels and content areas (Fives, Lacatena, & Gerard, 2014).

The study also did not make a recruiting distinction between potential participants who submitted their edTPA to the university for evaluation or Pearson for evaluation. Not a single participant submitted their edTPA portfolio to Pearson. However, since the assessments were only different in their scoring, students were completing the same assessment. Since this study did not use scoring as a tool for selection, nor as a way to interpret beliefs of candidates, whether a candidate submitted to the university or Pearson did not matter. The study did not seek out participants who were enrolled in a non-traditional teacher education program (e.g., a transition to teaching program). The university has several programs that provided different structures of preparation. Therefore, potential participants in these programs were not recruited in order to be able to draw comparisons between students with similar preparation experiences.

Table 1

Participants' background information

Participant	Home State	Licensure	Student Teaching Grade	Student Teaching Location
Eliza	Indiana	Secondary English	7th Grade English	City
Jacob	Indiana	Elementary	2nd Grade	Rural
Gwen	Illinois	Elementary	Kindergarten	Suburb
Jonna	Indiana	Elementary – Special Education	1st Grade	Rural
Katie	Indiana	Secondary English	9th Grade	Town
Lucy	Illinois	Elementary	3rd	City
Maria	Indiana	Secondary World Language	9th – 11th Grade	Town

Meredith	Indiana	Elementary	Kindergarten	Rural/Town
Nick	Indiana	Elementary	1st and 2nd Grade	Town
*All participants were in their early twenties. *All participants were white or functionally white.				

Timeline

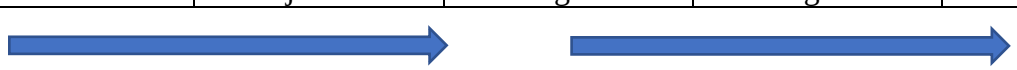
I performed the first interview with participants during the summer after they completed their edTPA portfolio and had graduated from IU. After the initial interview, I transcribed and coded the data. Due to the amount of time it took to recruit participants, interview them, and then analyze the initial interviews, I was unable to perform the second interview before the participants started their first year of teaching. The second interview took place within the first two months of their fall school calendars. Although this meant participants had completed and submitted their edTPA several months beforehand, it also provided time for the participants to reflect on their edTPA portfolios and towards the end of the interviews collect additional data regarding the alignment of their beliefs with their current practices.

Analysis

Different inductive codes were developed during the analysis of the first and second interviews in order to identify emerging themes within each participants' data. These themes were then organized into three to eight categories over the course of several readings. Inductive codes are descriptive words or short phrases found in the data record, the interviews, that become a means for organizing the data. By using participants' words and phrases as code, the data was synthesized, summarized, and condensed without reducing its complexity. In addition, the code was not decontextualized from the data (Saldaña, 2014). This type of coding allowed me to categorize the codes into themes using the participant's language and identify the beliefs of the participant. Saldaña similarly suggested that inductive coding is one strategy for understanding

the things inherent within or at the heart of a participant (p. 109). Inductive coding also allowed for the data to speak for itself without being restrained by a more structured methodology (Thomas, 2006). Thomas suggested inductive analysis allows "frequent, dominant, or significant themes inherent in raw data" (p. 238) to emerge within specific evaluation objectives. The initial reading of each interview often resulted in over fifty codes, which after several readings were synthesized into three to eight categories. See Figure 1 for the process of inductive analysis from (Thomas, 2006, p. 242).

Figure 1

The coding process in inductive analysis				
Initial reading of text data	Identify specific text segments related to objectives	Label the segments of text to create categories	Reduce overlap and redundancy among the categories	Create a model incorporating most important categories
				
Many pages of text	Many segments of text	30 to 40 categories	15 to 20 categories	3 to 8 categories

Codes were clustered by identifying phrases and ideas that expressed similar beliefs about teaching and learning. The arrows in Figure 1 show how the coding process moves to build only a handful of thematic categories. I identified the prevalent metaphor by comparing the quantity of inductive codes within each cluster and the significance the participant placed on a particular metaphor or description of teaching. This significance was determined by analyzing the context of the initial codes and their clusters, and the connections made by the participant within that code to other data. For example, when deciding if a participant's frequent mentioning of a certain description of teaching was their belief about teaching, the context and clustering of a frequently identified code was considered. In one case, I determined it was not the participants' prevalent belief about teaching because the participant routinely used it as an example of what they did not believe. I also compared the inductive codes with the participant's created metaphor.

This, alongside the clustering of the inductive codes, helped determine the participant's prevalent belief about teaching and learning. Each participant's first interview had its own set of inductive codes that I then looked for in their edTPA and while analyzing the second interview.

After I synthesized each participant's codes into three to eight categories, I identified which categories were related to Alger's (2009) overarching metaphors. Although the coding process began inductively, I moved to use Alger's overarching themes at the end of my inductive analysis in order to be able to compare participants' representations and beliefs about teaching and learning in the interviews and the edTPA. I chose not to use Alger's overarching codes as deductive codes for the coding process of the first interview because inductive coding provided a platform with which to better identify participants understanding of their beliefs about teaching and learning.

Once finished coding a participant's first interview, I read each participant's edTPA portfolio looking for areas where they clearly wrote about their teaching practices. I also looked for instances in their edTPA portfolio where their demonstrations and representations were aligned and misaligned with their dominant metaphor from their first interview. These misalignments were expected because beliefs and practices have a complex relation that can be impacted by "various internal (e.g., knowledge, value) and external (e.g., classroom context, administrative expectations, policy demands) factors [that] support or hinder the enactment of a belief." (Fives & Buehl, 2012, p. 481). Additionally, it was unrealistic to expect one metaphor to fully hold all the beliefs of participants (Sfard, 1998). Several times throughout the data analysis strong secondary or tertiary theme appeared. The places of misalignment between participants' primary belief and their representations provided a good space to ask participants why they did not represent their beliefs or even if they recognized how they adjusted the representations of

their beliefs. This space was also used to ask them about the complexity of their conceptions of teaching. From the analysis of the edTPA, I pulled four excerpts from a participant's edTPA where their teaching or planning could be observed. The excerpts came from their lesson plans and each of the three edTPA tasks. These excerpts were used in the second interview as the object for the participant's stimulated recall. In the stimulated recall process, I asked participants to identify places in the excerpts where they saw alignment or misalignment between their created metaphor in the first interview with and their representations.

When analyzing the second interview, I followed the same process I completed with the first interview. I created a large group of inductive codes that I then clustered into categories. Eventually, through several readings, codes were categorized into three to eight themes. Once finished with the coding of the second interview, I drew comparisons between participants' metaphors and beliefs about teaching and learning from the first interview with their stimulated recall in the second interview.

Conclusion

Methodologically, this study is unique within the literature on the edTPA. Only one other study has used the edTPA portfolio as the object of stimulation (e.g., Seelke, 2018). Although other studies have asked students about their representations within the portfolio, it is not clear that any have put the edTPA in front of candidates similarly to Seelke or this study. Seelke categorized his method as think-aloud. However, this might have been a mischaracterization of the method because the study did not have participants share their stream of consciousness, but rather participants analyzed and compared their in-service teacher practices with what was represented on the edTPA. Seelke paired an open-ended question protocol in the first interview with stimulated recall in the second interview. My study mitigated the concerns of researchers

about unstructured interviews, similar to Seelke's, by using metaphor analysis in the first interview and stimulated recall in the second. The pairing of these elicitation techniques, metaphor analysis and stimulated recall, was found to be well suited to investigate the relation between participants' beliefs and representations.

Chapter Four: Data and Analysis

The purpose of this study was to better understand the relation between the teaching practices candidates represented on the edTPA and their beliefs about teaching. As mentioned in chapter one, how candidates understood this relation and the implications of this relation are important for teacher education programs, candidates, and the edTPA. Not only did this study fill a gap within the literature on the edTPA, but it filled a more general gap in the literature that Clift and Brady (2005) identified, and Clayton (in N. Henning et al., 2018) suggested still exists, in the research on student teaching regarding candidates' perceptions. The first three chapters of this dissertation described my interest in this subject, introduced the research questions guiding this project, reviewed the literature on the edTPA, described a theoretical framework emphasizing the role of teachers' beliefs in guiding their practices, and introduced the methodology for data collecting and analysis. In the following chapter, the data collected from the two interviews performed with each of the nine participants is presented by addressing the study's research questions. The research questions guiding these interviews were:

1) What do student teachers say about what they decide to represent and demonstrate about teaching practice on the edTPA?
2) In what ways do their responses on the edTPA relate to their beliefs about teaching and learning?

The analysis of the interviews is split into two major sections. The first section presents and discusses participants' beliefs about teaching and learning through metaphor analysis: this section sets the groundwork for the analysis of the research questions. The research questions are addressed in the second section. The second section looks at the research questions simultaneously because the interview focused on having participants identify places of

(mis)alignment between their representations on the edTPA and their beliefs about teaching. When candidates were making these identifications, many of them described constraints in their student teaching experience that prevented them from demonstrating their beliefs about teaching in their contexts, which they then identified as impacting their representations of teaching on the edTPA. For example, three participants identified a prescribed curriculum or mandatory assessment as impacting their representations. They identified this impact by pointing out the way in which their teaching did not align with their beliefs about teaching and learning and what led to this misalignment.

Despite most participants feeling constrained to consistently demonstrate their beliefs because of their student teaching contexts, many still found ways to express their beliefs in certain sections of the edTPA. Furthermore, it was clear from the stimulated recall process that participants in their second interview were able to identify whether or not their portfolio aligned with their beliefs and provided explanations for this (mis)alignment. This evidence suggested participants were not affected by the edTPA in a negative way to the extent Meuwissen and Choppin (2015, 2017) and others suggested (e.g., Au, 2013; Clayton, 2018a, 2018b; Dover, 2018; Tuck & Gorlewski, 2017)**.** Notwithstanding certain frustrations with the amount of work they suggested the edTPA required, most participants were able to critique their own teaching demonstrations when addressing edTPA prompts, which brought them into alignment with their beliefs. Some participants even indicated that the edTPA, similar to Seelke (2018), had a positive impact on their teaching, highlighting the higher quality feedback they were expected to afford their students.

Participants' Metaphors and Beliefs

The participants in this study had a multitude of beliefs about teaching and learning. This finding was consistent with the literature on beliefs teachers hold about teaching and learning (Alger, 2009). These beliefs were expressed by participants in the first of two interviews. The second interview focused on the relation between participants' beliefs and their representations and demonstrations of teaching and learning on the edTPA. In the first interview I asked participants to create a metaphor about their beliefs about teaching. I gave examples of metaphors from other fields; a CEO might describe their job as captaining a ship or religious leaders might describe their work as shepherding. I then asked questions about their actual teaching practices and their ideal practices from their student teaching and practicum experiences. These questions were followed up by asking participants to compare how their actual and ideal teaching practices related to one another and how they related to the metaphor they had created. Participants described teachers as guides, facilitators, jugglers, compasses, members of a climbing team, retail assistants, a rock falling into a pond starting ripples, eating a bag of M&Ms, and a heart. Despite Bullough and Stokes' (1994) research that indicated participants might struggle to construct metaphors about teaching and learning, six out of nine participants created their metaphor without further prompting. To elicit a response from the few participants who struggled to construct a metaphor, I provided support by asking them to describe their ideals about teaching. One participant described their response as "what teaching should be." Through their description of their ideal teaching, these participants were then able to construct a metaphor. For example, Lucy initially struggled to construct a metaphor. When I prompted her to describe a teacher's roles and tasks, she responded with a list of things teachers were responsible for doing (e.g., promoting students' independence, promoting social skills, and fostering a positive learning environment) and roles teachers seemed to take on (e.g., social

worker and caregiver). Eventually, she described teachers as hearts of the classroom. At the end of the interview I asked participants to categorize their created metaphor into one of Alger's (2009) six overarching metaphors describing teaching. Participants were provided with Alger's description of each metaphor (See Appendix A). This provided a common tool for comparison between participants' conceptions of teaching.

Nick was the only participant who changed his initial metaphor after responding to questions about ideal teaching. Originally, Nick described teaching as being a superhero who used superpowers to help students. After he described his ideal teaching as collaborative and emphasized student participation in constructing knowledge, I asked him to consider if his metaphor aligned with his description. He replied, "No, not really anymore. When I first thought of superhero, I kind of thought of being able to provide a lot, but I feel like after talking about it a little more, I feel like it's not that." When he finally created a new metaphor towards the end of the interview, he said teaching is starting "a ripple in a pond. It is always building off of each other because the teacher is always growing to help better fit their students. The students are always growing because they're gaining knowledge and experiences." Though it was difficult to completely dismiss his initial metaphor, it was clear from his description of ideal teaching and his actual practices that he did not believe teachers needed to control student learning.

Though most participants did not struggle to create a metaphor, some participants were better at using their metaphor to make connections to their ideal teaching, actual teaching, and responses to questions than others. For example, Maria suggested she was part of a climbing team. She returned to her metaphor throughout the first interview to describe the similarities between leading a climb and teaching. When I asked how her metaphor aligned with her

statements about her ideal and actual teaching practices, she used her metaphor to explain the relationship between her and her students and her students with one another.

> I would say if I flesh out my metaphor a little more, I would say that it does fit. Especially, because I'm also looking at, not only are my students following me, but they're also being leaders and helping other classmates. I would see a group of climbers doing that. If another climber is up a little higher, they can say "Oh, you probably want to take this step and this step or maybe it would be easier if you try something else."

Not only did Maria suggest her metaphor fit the descriptions of teaching she had just given, but she gave an example of how a group on a climb supports one another. By comparing their stated beliefs with their responses to questions about teaching and learning, I was better able to identify their actual beliefs about teaching and learning.

She further clarified this idea of giving students spaces to teach one another when categorizing her metaphor. At the end of the first interview, participants were asked to place their created metaphor into one of Alger's (2009) six overarching metaphors (i.e., *Teaching is Guiding, Teaching is Nurturing, Teaching is Molding, Teaching is Transmission, Teaching is Providing Tools, Teaching is Engaging in Community)*. Though she identified her metaphor as fitting with the overarching metaphor of *Teaching is Guiding*, she clarified that she is not entirely satisfied with Alger's explanation of the metaphor because she did not see herself as "always leading the way." She went on to clarify her understanding of what it meant to be a guide by saying, "I sort of know the route we need to take, but I sometimes like to delegate leadership roles to my students." Maria's nuanced understanding of what it meant to be a guide played an important role in my analysis of her beliefs about teaching and learning. By having participants categorize their initial metaphor into one of Alger's overarching metaphors, I was able to draw a

more accurate conclusion of what the candidates meant by their initial metaphor. Like Maria, other participants' metaphors and their relation to the overarching metaphors were used as a tool for comparison with participants' responses to other questions about their thoughts on teaching and learning and the goals of teachers. This study found that seven out of nine participants' metaphors and beliefs about teaching and learning aligned with their explicit statements about teaching and learning.

However, the study also found that participants often identified additional overarching metaphors as being related to their metaphor. This was consistent with Sfard's (1998) suggestion that a single metaphor rarely captured a participant's beliefs in totality. Generally, participants identified their metaphor as being constructed of several overarching metaphors. For example, Meredith created the metaphor of teaching as juggling. When asked at the end of the interview to place it in one of Alger's six overarching metaphors, she suggested she would "have to build [my] own category because my metaphor is of me juggling all of this." Yet, when asked to pick only one metaphor, each participant was able to identify one primary overarching metaphor. Meredith, for example, responded to my push to identify a primary metaphor by categorizing juggling as providing tools. She justified her decision by suggesting the tools could fit different categories and she believed students needed to be in control of their learning.

Other participants expressed a hierarchical progression between primary, secondary, or tertiary overarching metaphors. Often these participants felt their created metaphor mostly aligned with a particular overarching metaphor, but there were particular parts of an overarching metaphor's definition that did not mesh exactly with their beliefs about teaching. For example, Gwen had difficulty deciding between *Teaching is Guiding* and *Teaching is Nurturing*.

> That's hard because two of them, B. and A. A. is *Teaching is Guiding*. That's a lot of what I said. However, I don't want to give them a map because that gives them a specific end. I would just be the compass on the map. So, I would probably go more towards B., which is *Teaching is Nurturing*. You know I am just watering it. I am giving them the guidance and helping them grow into what they want to become.

At the beginning of the interview, Gwen described the teacher as a compass. She described a compass as something a person uses "to guide you in the right direction. It doesn't give you the exact coordinates. It just gives you a direction to go into." She then went on to reiterate that teachers were compasses that gave students direction but did not tell them their destination. Both Gwen and Meredith's examples demonstrated participants' cognizance of the complexity of their beliefs about teaching.

Though participants generally represented their beliefs when answering questions about their actual practices and their ideals about teaching and learning, each participant periodically used language that was contradictory to their belief. This observation aligned with Sfard's (1998) idea that one metaphor rarely described a person's belief in totality because of the complex nature of beliefs (Fives & Buehl, 2012) and took into consideration that the participant and researcher did not always share a common language (Alger, 2009). Therefore, I considered it part of the analysis process to draw conclusions about participants' metaphors alignment to their actual beliefs about teaching and learning. For example, candidates might have said their metaphor fit under the overarching metaphor of *Teaching is Engaging in Community*, but when they defined teaching, they described it like Lucy did when she said, "Teaching is guiding students to develop their knowledge and literacy in a variety of subjects." Though she explicitly mentioned guiding, identifying an aspect of *Teaching is Guiding* it did not cause her belief about

teaching to be misaligned with *Teaching is Engaging in Community*. Participants routinely followed up what might seem like contradictory statements with additional explanations. Lucy further explained her thoughts on *Teaching is Engaging in Community*:

> To break it down themselves and make sense to them in their own world and realize how to apply it and realize what the purpose of it is going forward in life. Why you need math. Why you need those reading lessons. Why reading is important. Why all of the subjects are important. It is definitely more than just giving knowledge but helping them create that knowledge for themselves.

Her statement is full of language emphasizing students' active role in the organization, construction, and application of knowledge. At the end of the statement she explicitly drew a constructivists or sociocultural understanding of teaching by suggesting the students "create that knowledge for themselves" and that she helps them in creating this knowledge. These ideas aligned more closely with Alger's (2009) definition of *Teaching is Engaging in Community* than *Teaching is Guiding* overarching metaphors. Additional evidence for concluding Lucy's beliefs were aligned with her statements were found on her emphasis of students being able to apply knowledge "going forward in life." This idea of "going forward in life" closely relates to the justification she gave for her ranking, from most to least important, of Fives and Buehl's (2008) *Teaching Goals* (i.e., *Equality Among Students, The Products of Learning, Instruction Based on Student Interests, Student Independence, Learning Standards, Content Specific Knowledge, Academic Excellence, Critical Thinking in Students, Life-Long Learning, Generalized Skills and Abilities, Instruction Based on Subject Matter, The Process of Learning,* and *Student Creativity*). In her ranking she placed *Life-Long Learning* first because students

> leave my classroom and go on to take part in the rest of the community and I might not be there, but hopefully you continue learning and using your critical thinking, your processes of learning to take part in the community and be an active part of it.

It was clear that she wanted students to use the knowledge they created in her class throughout their lives and make a difference in their community. Her pairing of life-long learning and critical thinking strengthened her statement that her role was not "just giving knowledge but helping them [students] create that knowledge for themselves." This aligned more closely to Alger's description of *Teaching is Engaging in Community*, which Alger identified as "partnering" and distributing power, than the description of *Teaching is Guiding*, which Alger identified the teacher as the holder and reader of a map. Therefore, when participants used language that was contradictory to their stated metaphor, I closely analyzed the coding of their interviews to determine the frequency, emphasis, and contexts of their statements to determine whether I should conclude their beliefs about teaching and learning were different from their metaphors.

I found only two participants whose metaphor and categorization of their metaphor did not align consistently with their statements about teaching and learning.[13] Jacob suggested his metaphor of being a map fit under the overarching metaphor of *Teaching is Guiding*. Maria suggested her metaphor of teaching was being part of a climbing team fit under the metaphor of *Teaching is Guiding*. Both participants routinely used the language of guiding in their first interview. However, after coding their interviews and organizing the codes into themes, I concluded these two participants routinely described teaching in ways that did not align with the idea of *Teaching is Guiding*. Evidence for this claim was found in the participants' description of

[13] These participants do not include the participant who changed their initial metaphor.

the location of the teacher to students' learning. For example, I previously mentioned Maria said teaching was being on a climbing team:

> If I had to think of a metaphor, I don't know. I sort of help students with learning, but I'm also learning things from them and with them. I don't know. It's like a team that's doing mountain climbing. Maybe I'm sort of towards the front trying to help other people get up, but then it's also possible that my students might be ahead of me on this mountain with some other aspect of Spanish or maybe their ahead of their other classmates. It's like there is a whole bunch of different levels and it's my job to try and help make sure everyone can reach where we are trying to get to.

In her response she placed herself within a team, a group of people with a common goal. Though she saw herself as being a leader on the team, she also suggested that she was "learning things from them and with them." There was a sense that she relied on the students as part of the team learning Spanish. This was clearly a sociocultural understanding of teaching and something Alger (2009) classified under the metaphor of *Teaching is Engaging in Community*. Maria later reiterated the sociocultural nature of teaching and learning when she suggested teaching was a "collaborative effort for everyone to learn new things." Though she suggested the teacher might not be learning "explicitly new Spanish" she went on to suggest she was learning "ways to better connect with my students and … explain topics."

Maria's nuancing of the metaphor of *Teaching is Guiding* also hinted at her closer relation to *Teaching is Engaging in Community*. She drew a distinction between Alger's (2009) description of *Teaching is Guiding* and her own understanding of guiding when she said, "Except when I am teaching, I wouldn't say I am necessarily always leading the way. I sort of know the route we need to take, but I sometimes like to delegate leadership roles to my

students." Alger's description had suggested the teacher was leading because they have the map. Though Maria agreed that she might know the route to take, she qualified her knowledge by saying "sort of." Her delegation of leadership suggested that she participated in something more akin to a community of learners, which is closely related to the sociocultural characterization *Teaching is Engaging in Community* fits.

In contrast to Maria, Jacob's description of *Teaching is Guiding* often took the shape of *Teaching is Transmission*. He initially described his metaphor for teaching as teacher's providing a map. Alger (2009) used the same imagery to describe *Teaching is Guiding*, the teacher has "a map that shows us the way." When asked to categorize his created metaphor with Alger's overarching metaphors he quickly identified *Teaching is Guiding*. However, when he spoke about what it meant to provide a map as a teacher, his descriptions routinely aligned more closely with Alger's overarching metaphor *Teaching is Transmission*. Alger identified *Teaching is Transmission* as represented by unidirectional transference. Meaning, the transmission of information or learning only flowed from teachers to their students. When Jacob described his teaching, he described his actual practices and ideal practices as being very similar. Here is his description of how he taught math:

> I would go through the first problem out of five on the board or over the document camera together to show them how I would do it. I would model it and ask them to do the last four regular problems. After they did the last four, I would draw sticks from a little thing. … As each student would share their answer, if there were corrections needed, I would show the corrections on the overhead and explain what they did right and what they did wrong. Move on until we got down to the written response. When we got down to the written response, I would model the reading over my document camera and have

them follow along. That way they understood the question and could answer to the best of their ability. After I showed them what the question was asking for, I would give them about five minutes to answer it. Give them quite a while, so they could come up with something good. Walk around the room. If any of them needed help, they would raise their hand. I normally wouldn't ask for any [volunteers to answer] it, I would kind of tell them what it was. If you got it right, show me your hand and if you think you got it right, show me your hand. If you know you didn't get it right, go ahead and raise your hand … so I can tell you right now what it is that you did right or what it was that you did wrong.

Notice in his description of his teaching, he referred several times to telling students what they did wrong and right. His description of his teaching was very unidirectional. He did not ask students to explain their thinking, whether they answered correctly or incorrectly, which prevented him from knowing what his students did not understand. He only provided one set of steps to the answer.

In another portion of the first interview he made comments that also embodied this unidirectional and transmission approach to teaching when he responded to a question about learning by saying,

> Students are responsible for their own learning. If they choose to listen, then they'll learn. If they choose to take a different path, then they're turning their head to learning and therefore it's their responsibility to keep on track. We can't make them do anything. We can only hope they'll listen and believe we're there to benefit them and not hurt them.

For Jacob, his belief that learning was listening and that students were responsible for listening suggested the teacher was the one passing on the information and knowledge he thought the students needed. Additionally, his statement that a teacher "can't make [students] do anything"

and that a teacher "can only hope they'll listen" further provided evidence that although he selected *Teaching is Guiding*, his actual practices, which he claimed were identical to his ideal practices, align with *Teaching is Transmission*.

Despite the incongruence existing in his beliefs about teaching and his descriptions of teaching, there were places in Jacob's interview where he described teaching in more student-centered ways. For example, when ranking teacher's goals, he suggested one of his most important goals was to provide "each student with their own map." He followed this comment up by suggesting "students need to learn things they care about" because if they did not have those opportunities "then they're not going to be engaged." When asked to build on these ideas in relation to his metaphor, he described his teaching and learning as "drawing [a line] from A to X is that process of learning." Though each student had their own map, he was responsible for drawing it and they were responsible for following it. Even when he seemed to be moving to a more student-centered approach, the teaching was unidirectional and it did not seem to incorporate the students. It is clear that his categorization of his metaphor did not align with his beliefs and description of teaching and learning.

Though one might also be able to claim that both Jacob and Maria were still guides, it is clear from their interviews that they conceived of guiding in significantly different ways. However, as I previously mentioned when discussing participants who periodically used language contradictory to their stated beliefs about teaching, it was not unexpected for candidates to emphasize differing components of the overarching metaphors. Despite the existence of these different conceptions, it was still important to use Alger's (2009) overarching metaphors as a basis for comparison between participants. Determining participants' beliefs was important for this study because this study was concerned with the way participants' beliefs about teaching and

learning related to their representations of teaching and learning on the edTPA and whether their representations should be regarded as their beliefs about teaching and learning. Therefore, it was important to search for nuances in participants' responses in the interviews. For example, Maria's nuancing of what it meant to be a guide after reading Alger's description of *Teaching is Guiding* signaled I should look for other places where her responses might align more closely to a different overarching metaphor. Highlighting that a candidate's beliefs about teaching and learning did not align with what they said about teaching and learning demonstrated the difficulty and task teacher preparation programs have in helping candidates think about, understand, and demonstrate quality teaching. This becomes especially important in the context of the edTPA. In the case of Maria and Jacob, my recategorization of where their beliefs fit in Alger's (2009) overarching metaphors suggested some teacher candidates struggled to articulate their beliefs in their descriptions of teaching, categorize their beliefs, or possibly do not fully understand their beliefs.

Even though Maria and Jacob are only two of the participants, five of the remaining seven participants also struggled to articulate a clear and consistent belief about teaching. In some cases, when participants categorized their metaphor as fitting multiple overarching metaphors, it might be concluded that they understood the complexity of teaching. Their inability to align their metaphors with their ideals and actual practices suggested participants struggled to align their beliefs about and descriptions of quality teaching in both positive and negative ways. That this occurred without the pressure of a standardized test suggested candidates might also struggle to represent their beliefs on the edTPA. Empirical research had already suggested candidates described the edTPA as putting negative pressure on them during their student teaching (e.g., Dover, 2018; Mebratu & Ahuna, 2019) or at the least, was intense (Seelke, 2018).

Since beliefs are considered to have an impact on future action (Bandura, 1986; Fives & Buehl, 2012), it became important to investigate how participants' representations and demonstrations aligned with their beliefs. If a misalignment existed, could participants identify and justify the existence of the misalignment? This warranted looking further into the relation between their stated beliefs and their representations and begins to challenge Meuwissen and Choppin's (2017) suggestion that what candidates write about on the edTPA was their conception of quality teaching.

Participants' Beliefs and Metaphors in Relation to Their edTPA Representations

The investigation of participants' beliefs was the groundwork needed to address this study's research questions. By identifying participants' beliefs, the study was able to investigate the relation between their representations and demonstrations with their beliefs about quality teaching. Otherwise, this study could have only asked what student teachers say about what they decided to represent and demonstrate about teaching practice on the edTPA. Studying participants' beliefs was important if the study was to add to the literature in the field which currently suggests candidates' edTPA portfolios are "less an authentic indication of their practices than an indication of how they interpret and respond to required performance criteria" (p. 605) and that candidates' conceptions of quality teaching "are at least somewhat contingent upon what is named and prioritized in a high-stakes test that only partially captures the construct's dimensions" (p. 606). Having identified their beliefs, this study presents data detailing how participants' beliefs related to their decision-making processes and what they chose to represent in their edTPA portfolios.

After completing the first interview, participants were asked to email their entire edTPA portfolio to me. I read participants' entire portfolios. Reading the portfolios in their entirety

allowed me to have a better sense of how their plans related to their demonstrations of teaching as seen in the videos, and how these plans and demonstrations were represented in their portfolios. After reading through participants' portfolios, I identified several excerpts for participants to use as an object for stimulated recall. These excerpts were chosen because they clearly addressed the participants' teaching. Excerpts were consistently selected from their lesson plans, and then one from each of the edTPA's tasks.[14] Before having participants begin the stimulated recall process, I briefly read to them their descriptions of their metaphor from the first interview and showed them Alger's (2009) six overarching metaphors. I then asked if what they had said in the first interview still represented what they believed about teaching and learning. All responded affirmatively. I did this so that they would have a frame of reference for deciding whether their representations of teaching and learning on the edTPA aligned with their metaphor or if there were other metaphors that they felt their portfolio aligned with more. I did not make any suggestions to them about whether I concluded that their metaphor aligned with their beliefs.

Deciding What to Represent and Demonstrate and Its Relation to Participants' Beliefs

While candidates' representations on the edTPA were observable, their decision-making process on what to represent remained hidden. The second interview focused on making this internal process observable by asking candidates to use the edTPA as an object for recall. The candidates were given several excerpts from their edTPA portfolios where their teaching or thoughts about their teaching were clearly described. Candidates were asked to read through these excerpts and identify places where they saw alignment or a lack of alignment between their

[14] Choosing an excerpt from each of the edTPA's tasks had not been my original intent. However, once I began reading through the participants' edTPA portfolios, I found each task provided different angles from which to understand the participant's teaching. This might be considered an ironic finding by some because the edTPA's tasks intend to provide different angles from which to view candidates' teaching, but I had not made the assumption that each task would automatically provide these angles, nor had I thought participants' excerpts would be found in similar sections.

beliefs, as shared in the first interview, with their representations. As to be expected, each candidate believed what they represented on the edTPA would allow them to pass the edTPA or in the least, they hoped it would be enough to pass. When participants identified representations aligned or misaligned with their beliefs, I asked several follow-up questions. First, I asked them to elaborate on how they saw this particular representation aligned or misaligned with their beliefs. If participants identified places of misalignment, I asked them why they chose those specific lessons or why they wrote about their teaching in a particular way. Participants' responses to this question often highlighted various factors in their decision-making processes for what to demonstrate or how they demonstrated their teaching. This study found four major themes impacting candidates' demonstrations in their edTPA portfolios:

1) Cooperating Teacher
2) Heavily Prescribed and Strictly Paced Curriculum
3) Video Component of the edTPA
4) Conceptions of the edTPA

Table 2

Candidates' constraints in representing their beliefs

Participants	Cooperating Teachers	Prescribed or Scripted Curriculum	Video Component	Perception of the edTPA
Eliza		X		
Jacob				X
Gwen	X		X	
Jonna				X
Katie			X	
Lucy		X	X	
Maria		X		
Meredith	X			X
Nick				

Not a single theme was found in every participant (See Table 2). However, their reasons were often overlapping or complementary. Participants consistently mentioned at least two of these themes when discussing their reasoning for using or constructing their edTPA portfolio. Though some of these themes were shared more than others, they did not all have the same effect on the candidates' representations. For example, three of the nine participants mentioned the video component of the edTPA as being a factor in choosing what to demonstrate. Only two participants mentioned their cooperating teacher negatively influenced what they demonstrated. However, cooperating teachers had a larger impact on what the participants chose to demonstrate than the video component did on the other participants because of the limited scope of the video component's impact on their edTPA demonstrations or representations. Most participants only considered the video component frustrating because it impacted one aspect of their plans or demonstrations, unlike the cooperating teachers who impacted all of a participant's edTPA tasks.

Table 3

Constraints' impact on edTPA tasks

edTPA Tasks	Cooperating Teacher	Prescribed and Scripted Curriculum	Video Component	Perception of the edTPA
Planning Commentary	X	X		
Instruction Commentary	X	X	X	X
Assessment Commentary	X	X		

There was one participant (Nick) who was found not to have been constrained by the four major constraints other participants experienced. Nick not only had full control of his curriculum but felt supported by his cooperating teachers. He described feeling free to demonstrate and represent teaching as he saw best. His experience is analyzed in relation to the two external

constraints because he explicitly provided evidence of the positive impact his teacher candidates had on his student teaching experience and his explicit discussion of his full control over the curriculum. In those sections, he is presented as what might be possible if candidates are given support and freedom in their teaching contexts. His edTPA portfolios and interviews provided additional evidence of how impactful one's context is in deciding what to demonstrate and represent in the edTPA.

Within each of these themes, participants routinely drew on their own beliefs about teaching and learning in the discussion of their representations and demonstrations. Every participant was able to weave their own beliefs about teaching and learning into their edTPA portfolios; however, doing so took different forms. Some barely found their beliefs represented in their portfolio. Some were able to express what they believed through their teaching and identified the misalignment of their beliefs and representations as being their fault, primarily due to inexperience. Other participants' representations and demonstrations were constrained. Constrained participants consistently used the portion of the edTPA asking candidates to reflect on their next steps to articulate their beliefs about teaching and learning.

Cooperating Teacher

The cooperating teacher influenced how participants were able to represent themselves in their edTPA portfolio. Two out of the nine participants expressed that their lesson plans and teaching demonstrated on the edTPA were directly shaped in a negative way by their cooperating teacher. One of the nine participants described their cooperating teacher as having a positively shaping their edTPA portfolio. For example, Gwen's cooperating teacher had already planned the lessons for the semester. While looking through her lesson plans, she commented she did not even have the opportunity to choose what she demonstrated:

> When I was picking what I was going to do for my [edTPA] lessons, my teacher had everything planned and so she just said, "Pick a book." Like she had all these options. So, she kind of already gave me what kind of lessons to do and the students have already been working on these skills.

When asked whether her cooperating teacher's plans aligned with what Gwen wanted to demonstrate as a student teacher, she responded:

> It's kind of half and half. I understood where she is coming from because it is kindergarten. Repetition is a huge thing and all the books were really great and they aligned with everything you needed to do. ... I got to choose how I wanted to go about some of these things, but I think it was all very set up. This is the worksheet. Read a book. Worksheet. Read a book. Worksheet kind of thing. I probably wouldn't have done something like that. The theatre in me would say for visualizing, "ok, create it with your own body." I don't know if that's too high for a little kindergartener. It would be fun for them. It was a lot of color the picture, write a sentence. Color the picture, write a sentence. Color a picture, write a sentence. I probably would have tried to mix things up a little bit. So, every day they are not hearing the same story, whether it's someone else reading it or myself reading it. Going back and doing a worksheet after a little lesson.

Gwen's response suggested that she identified valuable components of her cooperating teacher's lesson plans, the routine, but did not value the monotony of the lessons. Though she said, "I got to choose how I wanted to go about some of these things," she immediately pointed out that she felt "it was all very set up" and that she was not able to use her theatrical background and suggested the students might have enjoyed doing theatre.

Having expressed that she was unable to choose what she demonstrated on the edTPA, I asked her, after having used her lesson plans for recall and while looking through Task 1, if there were plans or practices represented in the edTPA that did not align with her metaphor from the first interview. Though I was asking her to compare her representations in the portfolio with her metaphor in the first interview, she quickly moved to reiterate that she did not have control over the lesson plans. She responded:

> I'm not sure. I think, like I said before, the students had done these same activities before or very similar ones. I think that is the main point that doesn't align with mine, I would have mixed it up a bit or made it more interesting. Even after these lessons, the next week similar lessons, the next week similar lessons. We might switch up the skill or the topic, but it was still similar to read a book, draw, write, read a book, draw, write. I think that's the main point that doesn't go along with my mindset. At some point it just sounds [boring]. This is what we're doing every day. … I could tell the kids knew the routine. It got boring, even for me. I don't want that. I want to keep myself excited and engaged in the lesson, same as all the kids.

Her emphasis on not boring herself or her students reminded me of her previous comment about "the theatre in me" where she articulated a difference between her understanding of what it meant to be a teacher and what she had to do in her student teaching and what she represented in the edTPA. These comments suggested both Gwen and her students could become bored when she was not able to enact who she was as a teacher and what she believed about teaching. I followed up by asking why she included a quiz rather than use something else, like theatre, to assess learning in her lessons for the edTPA. She responded saying, "I did not like the quiz in anyway" and that she "didn't create the quiz. This was something that came along with the

lessons. I would have done something where the questions fit the skills they were working on and less on what happened in the story." Two things were clear from this response. First, Gwen distanced herself from the quiz. Second, Gwen felt she had to include something in her teaching she did not fully agree with. This made her decision of which assessment to use to analyze student learning in Task 3: Assessment Commentary important to investigate. Task 3 is where candidates are asked to analyze students' learning through assessments administered in class and reflect on the feedback given to the students. Out of the assessments planned by candidates, the edTPA asked candidates to identify an assessment providing evidence of students using specific skills and detail how the assessment informed their future instruction.

Regardless of her lack of control in deciding whether to administer a quiz or other forms of formal assessment, she chose not to analyze the quiz in the edTPA's Task 3: Assessment Commentary. Rather, she analyzed a whole class discussion and an individual worksheet. This is an important decision to recognize because it provided evidence that Gwen worked against the constraints of her cooperating teacher, to use assessments that she felt, as she stated previously, "fit the skills we [her class] were working on and less on what happened in the story." She continued on in that initial response to point out that asking about the story specifically measured students' comprehension of the story, but it did not assess the skills needed to accomplish the cooperating teacher's learning objectives as stated in the lesson plans.

The video clip demonstrated her use of in-depth questions, which she described as being different from her cooperating teacher's normal pedagogy. Gwen said the cooperating teacher did not stop consistently to ask students questions about the text nor to use the skills they were learning in class. For example, Gwen demonstrated in the video her practice of reading the page without showing students the picture and then asking them to share what they visualized while

she was reading. She suggested this was a deviation from what the cooperating teacher normally did and represented a "different way to learn something."

Despite only being allowed to choose the book for her lesson plans, she resisted the constraints placed on her demonstration of teaching by representing herself in the edTPA as asking students questions about the reading and challenging them to practice the skill of visualization they were learning and in the interview by comparing herself with her cooperating teacher. In the first interview, Gwen described herself as a compass, something that "gives you direction, but doesn't tell you what your destination is." In other portions of that first interview she emphasized the role students could and needed to have in their learning. The cooperating teacher's lack of engagement with students stuck out to Gwen. She distanced herself from her cooperating teacher by drawing on her initial metaphor from the first interview by saying, "I would hope that I did something a little bit different that would make it look kind of like a compass or guiding." For example, she demonstrated guiding students in her portfolio by asking them critical questions about a text and giving them opportunities to practice visualizing while reading a text. She suggested the teacher's normal pedagogical methods and plans were not guiding the students' learning because the teacher did not do these things. Though Gwen did not have control over what she had to teach or pass out, she did work to demonstrate some of her favorite practices on the edTPA by writing about things she had a little more control over. Despite this effort, it was clear from her interview and her reflection in the edTPA that much of what she was able to demonstrate in the edTPA was heavily influenced by her cooperating teacher.

The second participant who detailed their cooperating teacher's impact on their demonstration of teaching for the edTPA described her frustration with not being able to do

centers and small group activities with her students. In the first interview, Meredith created the metaphor of juggling to describe her beliefs about teaching. She then placed that metaphor under Alger's (2009) overarching metaphor of *Teaching is Providing Tools*. She chose *Teaching is Providing Tools* because the provision of tools required understanding of each student and incorporated several other overarching metaphors. As previously mentioned, she was an example of a participant whose metaphor did not capture the totality of her beliefs. In Task 2: Instruction Commentary Part 5: Analyzing Teaching of her edTPA portfolio, Meredith addressed changes she believed would improve student learning. In her writing she suggested, "Changing to small group instruction within centers supports students and their abilities in several ways," which she suggested would allow her to individualize the instruction for each student. Alger described this individualization of instruction as "each worker" receiving their own tools. She went on to suggest the positive impact that small group instruction would have had on her students. When I asked her why she did not feel comfortable demonstrating her work with small groups and centers in her edTPA portfolio, we had this exchange:

> Meredith: I was highly discouraged to do it because my teacher had a say on that. She said she didn't think it would benefit me because they don't do them.
>
> Alex: Ok. So, you didn't do it because your cooperating teacher suggested you shouldn't do it. Was it because you were doing your edTPA video and analysis? Did you ever do them when you were student teaching?
>
> Meredith: No, because she didn't do them. Because she didn't do them, that was the biggest thing. I kept saying that this would be so much easier if everything was a small group and she just saying, "It's the end of the day. They barely focus. We don't always get to math enough." It was her thing. I didn't agree with it.

Alex: So, it wasn't the edTPA that prevented you from doing it? From you doing something you believe is a best practice. It was your cooperating teacher?

Meredith: Yes. It was what it was. She was like, "I really don't suggest you do that because they don't know it." She's like, "It would probably take days to teach them just how to do the rotations." She didn't think it would benefit the whole edTPA part of it.

It was clear from the exchange that Meredith felt constrained to represent teaching in her edTPA by her cooperating teacher's attitude towards small group instruction when she said things like, "I was highly discouraged," "It was her thing. I didn't agree with it," and "She didn't think it would benefit the whole edTPA part of it." In this last statement, Meredith suggested the cooperating teacher might have had a particular conception of the edTPA portfolio and her decision not to allow Meredith to do small group instruction was based on concern rather than a disagreement over pedagogical practice. However, it did not seem that Meredith perceived this to be the main reason for her cooperating teacher's pushback when she said, "Because she didn't do them, that was the biggest thing." Meredith suggested throughout her student teaching she made comments to her cooperating teacher like, "This would be so much easier if everything was a small group." What is clear from this type of comment was that Meredith's beliefs about teaching were not able to be represented in her edTPA because of a contextual factor, not because of the edTPA.

Further evidence of the cooperating teacher impacting what Meredith was able to represent on the edTPA was evidenced by her description of the cooperating teacher as having "shot down" her ideas for her edTPA lessons. This phrase was used while asking her about whether she felt she was able to represent herself as a teacher on the edTPA. The exchange below reveals that Meredith believed there were limitations to her ability to demonstrate her

teaching. When I pressed her to give me an example, Meredith responded that her cooperating teacher had a lot to do with these limitations.

> Meredith: … that was the hardest thing about the edTPA. Your teacher is not on board, makes your life miserable. I had all these ideas for what I wanted to do and kind of got shot down.
>
> Alex: By her?
>
> Meredith: Mmhmm. [affirmative]
>
> Alex: Say you had had a supportive cooperating teacher; do you feel like you could have done small groups on the edTPA?
>
> Meredith: I would have done small group instruction regardless. I would have probably allowed them to do the routine of small group instruction the week before and then waited a week while they acclimated to the small group instruction idea and then started the edTPA. But she was like, "We don't do that." She didn't want me to mess up her plans.

It was clear from this exchange and previous exchanges that Meredith felt constrained by her cooperating teacher's plans and her dictums about what type of teaching took place in her classroom.

Both Gwen and Meredith expressed their cooperating teachers had significant negative impacts on what they were able to represent and demonstrate on the edTPA. Gwen seemed to push back against this constraint in her edTPA portfolio by choosing to analyze tasks she considered better assessments of the learning objectives. However, Meredith expressed agency in her perception of what the edTPA was asking her to represent when working with her student who did not do well on the assessment being analyzed in the Assessment Commentary. This will

be discussed in greater detail in the section on the way participants' conceptions of the edTPA impacted their demonstrations of teaching. There were ways around the constraints of a cooperating teacher as Gwen demonstrates, but as Meredith pointed out, it was more difficult to demonstrate your style and beliefs about teaching when the cooperating teacher was not on board.

Nick provides a counterexample to Gwen and Meredith's experiences. When I asked him about why he chose the lessons he represented on the edTPA, he said they were "just the next set of lessons the [cooperating] teacher was planning on doing." I thought when he referenced the cooperating teacher he would express a constraint on his ability to design the lesson, but when I asked about the design of the lesson and its alignment to his beliefs he said, "I had the freedom to adapt the lessons and modify them to fit my way of teaching" and later "I had to use the math curriculum, but I could change it in any way. I could take away stuff. I could add stuff. I could totally scratch a lesson from the book, but I had to cover the objectives." Later, he added that he "was able to represent my beliefs about teaching because it also helped that I had the freedom to adapt the lessons and modify them to fit my way of teaching." From these statements, it became clear that Nick's cooperating teachers[15] gave him freedom to plan lessons he felt were good.

The supportive context his cooperative teachers built was further evidenced when I asked Nick about a misalignment he identified between his demonstration of teaching in the edTPA and his beliefs. This "missed opportunity" was identified by Nick in his written reflection in Task 2: Instruction Commentary, Part 5. This was the section where candidates were asked to reflect on what changes they would make to their instruction to improve student learning. In his written reflection he suggested changing the support structure he gave students at the beginning

[15] Nick had two cooperating teachers. He student taught in a combined 1st and 2nd grade classroom that had fifty students.

of a game they played because he assessed that some students held misconceptions that needed addressing. When this section was used for the stimulated recall, he identified his original practices as not aligning with his beliefs because it did not provide the students with tools they needed to succeed. In the first interview Nick had said one of his strengths as a teacher was his ability to reflect. Drawing on this statement, I asked Nick in the second interview when he began reflecting on this change in his practice. He responded,

> I definitely thought about it right after the lesson. For this particular unit, me and my two cooperating teachers would sit down and talk about what went well and didn't go well. This missed opportunity was talked about shortly after teaching the lesson.

Besides saying he immediately reflected on the lesson, it is also important to notice who was present when he reflected. Both of Nick's cooperating teachers spent time reflecting with Nick about the lesson. It is likely that they even influenced his writing about what needed to be adjusted for his future teaching. However, this influence was considered positive because they helped him reflect on his practices in order to align his future practices with his desire to support students' learning. In the second interview, Nick suggested his cooperating teachers regularly spent time reflecting with him and stated that the cooperating teachers were attentive to his needs. He stated, "If I had a concern while I was teaching or I needed to reflect on what went well or didn't go well, they were pretty open to talking and critiquing or telling me what did or didn't go well." Nick's stimulated object recall during the second interview provided evidence that if a candidate was in a context where they were able to align their beliefs with their demonstrations and representations and they were supported well, then they would represent themselves and their beliefs on the assessment.

Research on the value of student teaching has suggested it is a critical component of learning to teach (Borko & Mayfield, 1995; Zeichner, 2002). The quality of the student teaching experience itself was often determined, not by the student-teacher's relationship with their students, but with their relationships with the cooperating-teacher and university supervisor (Clarke et al., 2014; Zeichner, 2002). The relationship between these three people is often called a triad. Within the triad it is widely accepted that the relationship between the student teacher and the cooperating teacher influences the quality of the student-teacher's experience the most (Weiss and Weiss, 2001; Donovan and Cannon, 2018). In regard to the edTPA, Behney's (2016) study on the perceived influence of cooperating teachers on candidates' edTPA performances gave evidence that student teachers struggled with the expectations and influence of the cooperating teacher. Some student teachers even suggested what the cooperating teacher was expecting them to do or follow did not align with the edTPA's expectations. Investigating cooperating teachers' impact on candidates' representations is important because their impact is more far reaching. The present study found that cooperating teachers significantly impacted what was represented in the edTPA and in these instances candidates' representations did not portray candidates' beliefs about quality teaching.

Besides recognizing that each candidates' representations of teaching were significantly impacted by their cooperating teacher, one the most significant findings might be that each candidate expressed major revisions to their teaching when asked to reflect on making changes in their edTPA portfolio. For example, Meredith when responding to prompt 5a in Task 2: Instruction Commentary wrote,

> For the changes in the future, I would transition from whole group instruction into more individualized, small group instruction. From the beginning, I was interested in doing

> centers with my students. However, coming into this teaching experience, the students in my classroom were not familiar with doing centers for math and I was hesitant to change their routine. I believe that small group instruction would help benefit the students that are struggling within the class that I also worked with during pre-teaching.

This quote was similar to something Gwen wrote about in 5a in Task 2: Instruction Commentary, when she suggested changing her instruction to use methods like reader's theatre would have engaged students more effectively in the learning process. Nick also used this space to recommend future steps that aligned more with his beliefs. Besides the example used above, where his cooperating teachers helped him reflect on adjustments for a "missed opportunity." He also suggested in 5a and 5b that a Think-Pair-Share activity would have helped students reflect on what had been taught and identify the relevant information they needed to understand the mathematics concept. His adjustments aligned with the description in the first interview of his belief that *Teaching is Guiding* where he described wanting students to "find their own path" and said teachers should not "push what they know" but rather "students should have their own path, their own ripple." Similarly, Meredith's writing in this prompt aligned closely to her characterization of *Teaching is Providing Tools* because centers were a good space for providing individualized tools. It seems clear from these three candidates' reflections about what they would do differently that the edTPA provided space where the participants felt comfortable in critiquing their representations in the portfolio. Interestingly, Meredith's writing above did not explicitly critique the cooperating teacher as the source for why she did not enact small groups. Rather, it took asking her about her to compare her beliefs and her edTPA portfolio to understand what shaped her demonstration. If someone read both Meredith and Nick's edTPA portfolio, the reader would not know that Meredith and Gwen were constrained by their

cooperating teachers and that Nick was critiquing his own plan and implementation. These participants identified what was written in response to prompt 5a and 5b in Task 2: Instruction Commentary as what they actually believed about teaching and learning.

Heavily Scripted and Strictly Paced Curriculum

Heavily prescribed and strictly paced or mandated curriculums have been identified in several other studies working with student teachers as greatly impacting candidates' ability to enact effective teaching practices they have learned from their teacher education programs (Ratner & Kolman, 2016; Retnaningsih, 2019) and possibly represented in their edTPA portfolios. This study found this connection existed. Three of the nine participants shared that their demonstrations of teaching in their edTPA portfolios were significantly impacted by mandated curriculums. The third participant identified a mandatory literacy assessment as having significantly impacted the pedagogical techniques and curricular decisions demonstrated in the edTPA. A fourth participant was not impacted by a prescribed curriculum. However, he mentioned the impact a prescribed or paced curriculum would have had on his ability to enact his beliefs about teaching and learning.

Eliza described her lesson plans as "scripted," "stuff we had to teach," and "these are the texts we have to use." Though she describes the curriculum as scripted, the curriculum she was prescribed was not scripted in the sense that it provided her a script of what to say to her students. Rather, it included all of the course's readings, end goals, essential questions, products, and performance-based tasks. Though she went on to share that she could play a little bit with the essential questions for each lesson and that she could shape how she presented material, she felt stuck trying to accomplish the daily mandated goals in short class periods because of the

prescribed curriculum's strict pacing while attempting to emphasize certain tasks or ideas she found relevant for students and to support students well.

The Secondary English Language Arts edTPA in Task 1: Planning Commentary Part 2 asked candidates to write about their knowledge of students and how this informed their unit's objectives. In Part 3 of the same task, candidates were asked to justify their planning decisions based on their knowledge of their students. In both sections, Eliza highlighted the diversity of the school in which she completed her student teaching. In Part 2, she highlighted her practice of having students write down three important things on an index card. From these index cards, she wrote that she found out that "many of [her] students talked of their culture. Many wrote about their heritage, interests, and abilities. Some boasted of their native languages, country of origin, or religious values cherished in their families." She then wrote,

> I want to utilize this asset as a lens through which to view scientific exploration. Gloria Ladson-Billings explains how important it is to use the "transformative" model of teaching multiculturalism. This model strives to incorporate various perspectives throughout each unit. *It creates an authentic multicultural experience, rather than a superficial grazing of a token culture. This model is important to my classroom because of the students' asset[s] of diversity.* [emphasis added]

Her writing clearly demonstrated her commitment to support students' identities and values. However, in Part 3 she wrote,

> Unfortunately, neither my teacher nor I have the opportunity to choose the readings we do in class. However, I still have sought out a moment to "transformatively incorporate diversity. While reading "Disaster in Space," I noticed a small caption next to a picture of the three astronauts from the article. The captions reads, "America's first astronauts were

> all white men. Prejudice and discriminations kept women, African Americans, Latinos, and other groups of many professions through the 1970s." … I instantly adapted our lesson, which was already over text features, to be sure to include this caption as a key point in the reading. … While discussing this with the students, I will bring up points about the civil rights movement, feminism, and tie the article to the film *Hidden Figures*. … I want to mention [*Hidden Figures*] so the students who have seen it can connect this article with schema they already possess.

It is clear Eliza recognized the importance of incorporating her students' identities into her teaching practice. She readdressed the importance of this practice when asked in Task 2: Instruction Commentary, Part 5: Analyzing Teaching. This prompt asked candidates to write about what changes they would make in their instruction and why these changes would improve student learning. In her response, Eliza wrote about her desire "to prioritize transformative cultural learning" because it "authentically include[s] multiple cultural perspectives. This affirms the experiences of students of color and broadens the perspectives of students who are not. I need to prioritize transformative cultural learning over time or teaching pressures." She also said, "Gloria Ladson-Billings, she's great. That's definitely multiculturalism, which is something I wanted to bring in with these kids in particular." Written reflections like these, found in Part 2 of Task 1 and Part 5 of Task 2, aligned closely with her belief expressed in the first interview where she described what it meant to be a guide in response to a question that asked how her beliefs about teaching and learning intersected:

> That's why I see myself as more of a guide because I don't feel that I can ever tell someone something and they're going to be like, "Yes, absolutely." I think people need to create their own meaning. In my classroom, they're trying to create meaning from the

> books I present to them, the articles we read, the writing assignments I have them do. In my classroom, I think I can facilitate that creating of meaning for both themselves and the world. I can incorporate books and articles that I think will be meaningful for my students themselves based on their interests or their place in life. I can also bring outside perspectives that they may not have access to, like in their home life or just haven't experienced yet. That's how I think I can guide them as they're creating meaning of the world and themselves.

Her response gave evidence that Eliza believed culturally responsive learning needed to be a part of her curriculum. When asked if she thought her reflection in Part 5 aligned more with her beliefs, she suggested it did, but that, "It just felt like I didn't do a very good job. Throughout the whole semester, I didn't really bring in their cultures as much as I wanted." Given that Ladson-Billings is the originator of culturally responsive teaching, Eliza's identification of Gloria Ladson-Billings helped identify the type of teaching Eliza was interested in doing.

However, Eliza's response also stated her negative evaluation of her ability to embody the culturally responsive teaching she hoped to bring her students. I followed up this response by asking why she evaluated her enactment of culturally responsive practices negatively. She responded:

> Well a lot of it was because we were scripted everything. I felt like the text we read didn't lend itself to this idea smoothly. I felt like this was the one moment the whole semester where race and racism were actually brought up. … I wanted it to be more real for my students and felt like the stuff we had to teach was like, "Oh, that's fine, but here's what Scholastic has provided." I just felt like anytime I tried to incorporate it, it was a reach. I felt like I didn't quite have the autonomy to do what I wanted to do with it.

Previously in the interview she had voiced her displeasure with the pressure she felt to keep pace with the prescribed curriculum. Along with the quotes from the first interview and the excerpts from Task 1 and 2, it became clear that she cared about and planned on helping students make connections to their cultures and to their real world, but that the heavily prescribed curriculum and its strict pace worked against her ability to allow students to make connections between their lives and the curriculum. Later in the interview, she reflected on a moment where she felt like she had briefly taught in a culturally responsive way by helping her students make a connection between *Hidden Figures*, a movie, and their argumentative essays on space exploration. In the second interview she described the moment as "the only moment in any of those lessons that I could do that [make a connection to their cultures]" and that, "It was such a fast moment too," but that, "It was a good moment and then it was over. It was like I couldn't really guide them through their thinking" because the curriculum did not make time for it and that "It was more like, 'Hey, look at this' and it was done." She even made a specific connection to the provider of the curriculum, Scholastic Corp. When she suggested the school responded to the idea of being a culturally responsive teacher by saying "Oh, that's fine, but here's what Scholastic has provided." Though Eliza wrote in Task 1 that the school "proudly boasts of its diversity," Eliza interpreted the school's concerns as not aligning with her own culturally responsive beliefs because of the prescribed and paced curriculum. This atmosphere impacted Eliza's demonstration of teaching.

In addition to directly mentioning the curriculum's lack of inclusion of diverse voices and the school's attitude toward its diverse students, Eliza also suggested the prescribed curriculum included a lesson irrelevant to building an argumentative essay. Though she suggested at the beginning of the interview that the lessons generally "built upon [themselves] really well" and

that she thought the objectives of the lessons were good, when she described lesson two of the prescribed curriculum, she evaluated the lesson as not being aligned with the overall objective of the argumentative essay. Her inclusion of a lesson that was not aligned with the other lessons suggested the prescribed curriculum had significant influence on Eliza's demonstration of teaching.

Similar to Eliza, Maria described the teaching demonstrated on the edTPA as being constrained by a heavily prescribed and strictly paced curriculum. When asked to describe why she chose to represent her teaching in particular ways in the portfolio, Maria said things like, "I don't get to teach exactly what I [want] because I have to make sure it fits into their curriculum." When I asked her to clarify what she meant by "their curriculum," she said it was the school's curriculum. Though there were points in her portfolio she suggested she was able "to incorporate my style of teaching," she reiterated the constraints of the curriculum when saying, "There were times when I could not use my style of teaching because I had to make sure students were still learning what they needed to in order to keep up with the curriculum." These statements gave evidence that the curriculum impacted her ability to demonstrate her teaching in the edTPA portfolio and the way her representations related to her beliefs. When I asked if this was an issue throughout her student teaching, she responded affirmatively. In places where she felt able to demonstrate her teaching and the types of lessons she built, she described herself as having "found ways to incorporate what I wanted and how I like to teach it." The curriculum was something she had to work around in order to demonstrate her own teaching on the edTPA. Only when she had "freedom" from the curriculum "to direct how we [the class] do things" did she feel she demonstrated her own teaching.

Maria's description of the prescribed curriculum's impact on her demonstration of teaching on the edTPA was clear. Yet, the impact became more visible when she discussed its effect on her student teaching experience. One reason she suggested it had a smaller impact on her demonstration of teaching on the edTPA portfolio is because it more closely aligned to what she considered effective methods for accomplishing the central objectives in her lesson plans. However, several times she drew a distinction between what she demonstrated in her edTPA with what she believed to be the most effective methods of teaching grammar. For example, she suggested,

> If I had to do my edTPA when [the curriculum] was more grammar based, my teaching wouldn't have aligned as well with my ideals. It would have been more direct rather than the PACE Model and guiding them to it.

This quote demonstrated the impact the prescribed curriculum had on what she decided to represent and demonstrate in two ways. First, it emphasized that she followed the prescribed curriculum throughout her student teaching experience despite disagreeing with some of its methods. Therefore, it impacted what she was able to practice. For example, she would have rather incorporated the PACE Model (Adair-Hauck & Donato, 2002) for teaching grammar. In the first interview, Maria used the PACE Model for teaching grammar as an example of a method that aligned with her beliefs about teaching. She said it allowed her to guide students rather than relying on a direct pedagogical method. The difference between Maria and her cooperating teacher might have been caused by the rapid change in what was considered effective pedagogical methods in world language teacher preparation in the last ten to fifteen years. Behney (2016) found that some cooperating teachers even recognized this change in accepted practices but struggled or failed to incorporate these methods because they had not been

taught them. Student teachers in Behney's study identified these differences as well and suggested this impacted their ability to align their consistent practices with the edTPA's expectations. Though the present study identified Maria as being impacted by a prescribed curriculum, it may have been that a prescribed curriculum produced a similar difficulty for Maria as for Behney's student teachers. Second, the quote above suggested she would have used the prescribed curriculum on the edTPA even though she did not think its methods were the most effective. For both Eliza and Maria, the prescribed curriculum constrained their ability to demonstrate certain forms of what they believed to be good or effective teaching.

The third participant in this category was not constrained by a prescribed curriculum but rather by a mandatory assessment used by the school. The school evaluated students' fluency using the Rasinski Fluency Assessment, which evaluated students based on Rasinski's Multidimensional Fluency Scale. Lucy suggested she chose to teach about certain components of fluency rather than emphasize the particular skill despite believing the definitions were unnecessary for students to know.

> I think there are a lot of ways to improve fluency that aren't this, here's what you're learning. I feel like there are ways for them to learn it without knowing what phrasing is. This is what intonation is. I think they can increase fluency without having to know what all those mean.

When I asked her why she would teach students content that she considered unnecessary to promote fluency, she replied, "Because that's what I was assessing them on. I wanted them to know exactly what those were." Alongside the impact the assessment had on the content, she also suggested her teaching style was impacted by the assessment. For example, when reading through her edTPA portfolio, she pointed out where her teaching looked more like she was

providing tools for students rather than allowing students to engage in community to build fluency. Although Alger (2009) identified providing tools as a positive overarching metaphor, Lucy still recognized that *Teaching is Providing Tools* was not what she believed to be the most effective teaching practices.

When asked what she would have demonstrated without the constraints of the assessment, she commented that she might have done things like reader's theatre or other more interactive activities. She went on to suggest that these activities would have promoted students building their fluency skills by engaging in a community of learning rather than individually learning fluency components' definitions. Practices that promoted sociocultural forms of learning would have aligned closely with the beliefs Lucy espoused in the first interview when she categorized her metaphor under Alger's (2009) overarching metaphors. She selected *Teaching is Engaging in Community* because

> it says, "We collectively decided that we need a house and then we design and build it together." That makes me think of responsive teaching and talking with your students about why we need it and why it's important and how I think more independently they can design and build it together when they leave schools or your classroom.

However, her beliefs did not align with her representations in her edTPA portfolio. At the end of the interview as she reflected on this misalignment, she even wondered whether her demonstrations and representations in the portfolio were "actually reflecting what I've learned and everything I've learned." Though this comment could suggest she considered the edTPA to be a part of the reason her portfolio did not reflect what she learned in college, it is as likely, based on her comments about the relation between her demonstrations and her beliefs, that because of the pressure to teach towards the assessment she was unable to represent what she

learned. Lucy also described being impacted by the video component of the edTPA, which will be discussed further below. Nevertheless, it was clear the Rasinksi Fluency Assessment the school used to measure students' growth helped constrained Lucy's demonstration of her teaching beliefs in her edTPA portfolio.

A counterexample of the impact of a prescribed curriculum is provided by Nick. He was not constrained by a prescribed curriculum. In the second interview when I asked about the design of the lesson and its alignment to his beliefs he described his ability to "adapt" and "modify" lessons "to fit my way of teaching. Though he later said he "had to use the math curriculum," he reiterated that he "could change it in any way. I could take away stuff. I could add stuff. I could totally scratch a lesson from the book, but I had to cover the objectives." It is clear from these statements that he had the freedom to align his teaching with his beliefs.

He followed up these statements by describing what he would have felt if he had to follow a prescribed curriculum.

> I think if I was just given a lesson plan and had to teach from that, it would be more challenging to have my beliefs in teaching. Since I was able to come up with the lesson plans myself and change them, it was easier to put my teaching beliefs in how I teach.

Notice how he mentioned if he had been prescribed a curriculum, it would have been "challenging" to incorporate his beliefs. Similarly, Retnaningsih (2019) found that mandatory curriculums hampered student teachers' ability to demonstrate their beliefs about effective teaching practices. Student teachers felt free to enact their beliefs when they were given freedom over their teaching and had supportive cooperating teachers who helped them navigate possible points of tension. Nick provided a positive example of how supportive cooperating teachers and

having freedom over the curriculum promotes candidates' ability to demonstrate and represent their beliefs in their edTPA portfolios.

Similar to the participants who suggested their cooperating teacher impacted their demonstrations, the power of the prescribed curriculum's impact on the participants became evident in the sections of the edTPA that asked students to describe changes they would make or next steps to take. Two out of these three participants expressed revisions or next steps to their teaching that would have been more in line with their desired demonstrations if they did not have prescribed curriculums or assessments. Both Maria and Eliza identified these changes in their second interviews as aligning more with their beliefs. For example, Maria wrote about the need for her students to have more practice with the conditional tense and the usefulness of the PACE Model in the edTPA's section of Task 3 called Using Assessment to Inform Instruction. Her suggestions for next steps based on the assessment prescribed in the curriculum were different than what the curriculum allowed for. She explicitly drew on the PACE Model's methods for building students' fluency with verb tenses.

Eliza displayed a similar understanding of the impact of the heavily prescribed and strictly paced curriculum in her edTPA portfolio when she responded to the edTPA's prompt asking her, "What changes would you make to your instruction …to better support student learning of the central focus (e.g., missed opportunities)?" She wrote,

> If I could do it all over again, I would carve out a time to show a clip from the movie [*Hidden Figures*], rather than spend so much time discussing text features. I believe that would have been a much better use of time.

Her suggestion that spending time watching *Hidden Figures* would have been a better use of time than learning about text features gave evidence that the prescribed curriculum negatively

impacted her demonstration of teaching on the edTPA. Her writing continued to demonstrate the impact of the curriculum in the next prompt. In response to the prompt, "Why do you think these changes would improve student learning? Support your explanation with evidence of student learning **AND** principles from theory and/or research," she wrote,

> I believe this would improve student learning because it all ties back to Gloria Ladson-Billings' transformative model of pedagogically incorporating multiculturalism. She describes how important this model is to authentically include multiple cultural perspectives. This affirms the experiences of students of color and broadens the perspectives of students who are not. I need to prioritize transformative cultural learning over time or teaching pressures. In the long run, this is much more important.

Eliza solidified the interpretation of the negative impact of the prescribed curriculum while performing the stimulated recall on these excerpts during the second interview. She affirmed that making this change would have aligned her teaching more with her metaphor. Though the heavily prescribed and strictly paced curriculum clearly constrained her ability to demonstrate a specific ethos of teaching, the edTPA provided space for participants to articulate their understanding of quality teaching and that what was written in these spaces might reflect what candidates actually believe about teaching and learning.

Critiquing their constraints in these spaces is similar to what the participants who were impacted by their cooperating teacher also did. However, participants did not always use sections of the edTPA that asked candidates to critique or provide next steps for their teaching to write about practices they considered in line or more in line with their beliefs. Lucy split her responses in these sections to address future scenarios where she built "next steps of a similar learning segment with a new text, but similar assessment" and to address her own concerns aligned with

her beliefs. For example, in the interview she critiqued the necessity to teach students certain vocabulary words as being representative of their fluency rather than their overall fluency skills. However, even when splitting her responses, she spent more time addressing next steps for using the Rasinski Assessment than discussing methods of promoting fluency while engaging in community. Lucy seemed to have taken a practical approach to her next steps. She addressed next steps for what she demonstrated in the edTPA even though they would not have necessarily aligned with her beliefs about teaching because they were tied to an assessment emphasizing definitions.

The difference between the ways the participants used the sections of the edTPA portfolio to propose next steps demonstrated that the edTPA rubric gave space for candidates to write in a variety of ways about their teaching. It also suggested that candidates completing the edTPA might use the edTPA to align their constrained teaching with their beliefs if teacher preparation programs or the edTPA manual provided them support or encouragement to address the limiting factors of their student teaching experience and what they would do differently. This would then allow preparation programs to more fully understand candidates' conceptions of teaching quality.

Video Component of the edTPA

Each of the nine participants recalled thinking about the video component of the edTPA before recording their lessons. This makes sense considering one has to plan how to record one's lesson, who is going to do the recording, and which demonstrations of teaching are recorded. Several participants expressed frustration with the video component, but they were not included in this theme because they did not identify the video component as having had impact on their demonstrations and representations of teaching. For example, Meredith mentioned having to

videotape one of her individualized feedback sessions in a room outside of her normal classroom. She suggested this was problematic because a class walked in on her video and distracted the student. However, this experience was not coded as being a part of this theme because she did not suggest this experience impacted her demonstrations or representations of teaching. Several studies investigating the edTPA gave evidence that candidates found the edTPA video component to cause additional stress, frustration, or distracted from their teaching (e.g., Bacon & Blachman, 2017; Chiu, 2014; Choppin & Meuwissen, 2017; Mebratu & Ahuna, 2019). Others provided evidence candidates found the video component useful (e.g., Chiu, 2014; Seelke, 2018). This study found both conclusions were true. When considering the negative impact of the video component on participants' representations, only three of the nine participants described their actual representations and demonstrations being impacted by the video component. For example, two participants stated the edTPA impacted who they included in their demonstration of teaching (Lucy & Katie). Three participants, including the previous two, commented the video component impacted how they taught (Katie, Lucy, & Gwen).

As previously described towards the beginning of this chapter, most participants identified multiple factors that impacted their decision-making about what to demonstrate or how to demonstrate their teaching in their portfolios. Therefore, it should not come as a surprise that Lucy and Gwen are included in this section as well. The impact of the video component for each varied in comparison to the other factors that impacted their representations. As will be shown below, Gwen's portfolio was only impacted by the video component in one sense. Contrarily, the video component had a much greater impact on Lucy, but it was difficult to compare to the other factors that impacted her because they affected different areas of the portfolio.

When Katie and Lucy spoke about the video component's impact on who they included in their demonstrations of teaching, they described it effecting different components of their portfolio. As mentioned previously, all the participants described thinking about the video component before completing that portion of the portfolio. However, Lucy is the only participant that suggested she chose to do something differently based on the inclusion of a video component in her portfolio:

> I think some of my better teaching during student teaching was with the whole class, but there were so many challenging behaviors in my class. Students with emotional behavioral disorders. I think I would have been way too stressed out teaching a lesson being videoed where students start throwing a chair across the room or be profane with me or walk out of the room. There were too many factors, so I did it with a small group.

Although she thought some of her best teaching was with the whole class, she said that video recording her students made her nervous due to their possible behaviors. Concerns over students behavior were present in the literature as well. For example, Meuwissen and Choppin (2017) quoted a candidate that "sanitized" their demonstration of teaching in the video component because a student had "had the biggest meltdown that I have ever handled" (p. 604). Their participant went on to claim that "You can't send that to the state" (p. 604). Lucy's choice of what to videotape was different than what Meuwissen and Choppin described as "sanitizing" because her changes were premediated. She did not express that teaching a smaller group was not aligned with her beliefs about teaching, but that it did not demonstrate her best teaching. Her statement revealed that the edTPA impacted whom she chose to teach. However, it was not clear that it impacted the quality of her teaching in this example. Lucy's identification of the impact of the video component provides a good example of how a better support system for candidates

taking the edTPA might be important. This could also be true for Meuwissen and Choppin's participant because they seemed to think their demonstrations and representations had to be perfect. SCALE might argue that Lucy could have demonstrated her teaching in large or small groups and if there were behavioral issues, she could have written about why this occurred and what she might do differently. This also ties into candidates' perceptions of the edTPA which will be discussed in the next theme.

Katie also described the video component as impacting whom she chose to teach. However, unlike Lucy, Katie suggested the impact occurred while teaching, not before. To situate this impact within the edTPA portfolio, Lucy experienced the impact of the video component while planning her lessons and in Task 1 of the edTPA, before the teaching event. Katie experienced the impact of the video component on who she taught in Task 2 while recording the teaching event. In her writing about the small group video clip, she critiqued the demonstration of her teaching in the video. It was clear from the noise in the small group video that there were other small groups in the classroom; Katie confirmed this in the second interview. However, Katie never left the one small group being recorded. In her portfolio she identified her lack of movement to other groups as problematic because the other groups seemed to have experienced "confusion about the Shakespearean sonnet." She wrote she should have "made myself available to all my students rather than just a group of three students." She reiterated the desire to change what she demonstrated and describes her reason for staying with this group in the interview by recalling,

> I stayed stationary in my small group video. Partly because I knew I was doing my small group video, so I didn't leave them to go to another group, but I wish I would have …

> That way, the other students in the class wouldn't have been so neglected or confused about what they were doing because I was focused on my small group video.

This statement was evidence that the video component impacted who Katie felt comfortable teaching in the moment. She clearly understood other groups were confused, probably from the conversations she could overhear while working with the small group in the video but did not feel comfortable making an adjustment in the midst of recording.

Both Lucy and Katie also expressed the video component impacted how they taught. A third participant, Gwen, shared this sentiment. Lucy and Gwen described the video component as impacting their plans for how they were going to teach. Comparatively, and similar to the way Katie considered who she taught, Katie also gave evidence that in the moment of teaching, her consideration of the video component impacted the quality of her teaching. For example, while reading through the Instruction Commentary of her edTPA, Katie recalled that she dominated the discussion in her first video clip when she was teaching the whole class. When I asked why she thought she dominated the discussion, she said,

> I was so worried about not hearing what the students were saying that I felt like that's why I dominated more of the talking because I wanted to make sure you can hear because you can't hear what all eight table groups are saying in the video. It is impossible for that to happen unless I took the video to each table one by one and had them repeat their conversations. So that's where I was dominating more because I wanted to make sure that the information was still getting across so that it would be seen in my video, but the students weren't really getting all of that.

Concerned about the audio quality, Katie said she knowingly dominated the conversation despite recognizing the students "weren't really getting all of that [the content]." Katie recalled thinking

about being the only person facing the camera because the camera was positioned in the back corner of the room and all the students were facing her at the front. Technical issues with audio can result in a candidate's submitted portfolio to receive a condition code (Pearson, 2020). Receiving condition codes jeopardizes the ability to score a portfolio and may result in the portfolio being returned as incomplete. In order to prevent receiving a condition code for audio quality, a candidate can submit a written transcript. Though Katie submitted a written transcript, her statements during the stimulated recall revealed the significant impact the video component had on her demonstration of teaching.

Her written portfolio also provided evidence that Katie did not like how she demonstrated her teaching in the section of Task 2 where the edTPA asked her to make suggestions on how to improve her teaching. In this section she described her teaching in the whole class video as having "dominated more of the discussion." She then wrote what she could have done instead, "I could have pushed students to elaborate further or to back their answers up by referring to a specific line or section of the text." This suggestion was more in line with her description of the ideal teaching she described in the first interview when we explored her beliefs about teaching and learning. In the first interview she mentioned being a teacher who facilitated learning and that she did not want to "dump information," but rather let students "learn on their own and learn from each other." Though she did not identify the video component as having impacted her demonstration in her writing, she did identify it as the cause of her dislike for her demonstration of teaching during the second interview. She associated what she did in the video clip with what she did not want to be in the first interview, a teacher who "dump[s] information." It is also important to note that Katie did not suggest in either her writing or interview that the edTPA was at fault for her teaching in either video clip. In fact, at the end of the interview she discussed the

usefulness of the video component because she had never watched herself teaching. However, it should be noted that what she demonstrated in the clip was impacted by the recording of video.

Previously I detailed how Lucy described the video component impacting who she taught. At another place in the second interview she described the impact of the video component on how she was going to teach as taking place in the planning stages. While reading through Task 1: Planning Commentary, Lucy identified several areas that did not align with her predominant metaphor of *Teaching is Engaging in Community*. In one of these instances she discussed not giving students a choice about the roles in a play they were going to enact because it "might not have gone over very well." When I asked her to clarify why she thought giving students a choice would not go over very well, she replied, "Because two of them might have wanted to be the wolf and they might have had a disagreement. Especially on video, that might not have gone over very well." The theme of not trusting students' behavior was further verified in this next exchange:

> Me: If it [your teaching] hadn't been on video or you hadn't been doing it for the edTPA, would you have let them choose?
>
> Lucy: Maybe yeah. A lot of times I like to have students, even in group activities, to allow them to choose their groups or their partners. I mean it's a little different, but I normally say things like you can choose who you are working with. You can choose who you are sitting with. I like to give students choice and just say, "Be responsible with it. It's a privilege. If you can handle it, you can keep that privilege. Otherwise, I'll have to choose myself." It just takes a little bit more time and management. I think for the purposes of this, I thought it would be easier to choose.

In this exchange she clarified that she preferred to give students a lot of choice, but because she planned on recording this lesson for her edTPA, she adjusted her teaching to not give students as much freedom. Her distinction between her preferred teaching and what she demonstrated in the edTPA gave evidence that the video component impacted her consideration of what to demonstrate.

Gwen made a similar claim about her representations on the edTPA when she identified the next steps she would take in Task 3 Part 4, which asked candidates to write about how the assessment will inform their teaching. When asked if these next steps would be more aligned with her beliefs about teaching than what she had represented on the edTPA, she responded,

> I think just because it was the edTPA, I wanted to take a safe route, and this was the safest route I could go. At the same time, it's kindergarten and I had never taught kindergarten. I didn't know if it would be too high for them. If I was teaching kindergarten for two years, that second year I would be like, "Oh yeah, these kids are probably at the level they can do more." Maybe even later on, since we were working on the details and things like that, maybe a week or two later they could have done things like that.

When I asked her to explain what the "safe route" meant, she included in her explanation, among other things, the role of her cooperating teacher and her perception of the edTPA, that the kids knew the structures and procedures of the class and she did not need to worry about them during her filming:

> If I was to film it, I wasn't worried that some kid was going to be off and not understanding anything. So, I looked better because the kids knew she [I] was going to read the story. Now, we're going to do this once she tells us to go back to our seats. Now,

we're going to do this. They had the procedures in their head already. That is why it was the safe route.

Though this statement gave evidence for the impact of the edTPA's video component, one must also remember that Gwen's cooperating teacher played a large role in what she chose to demonstrate on the edTPA. It was suggested earlier when discussing the impact of her cooperating teacher, that what she was allowed to represent in the edTPA was not what she would have done. However, Gwen's comments about the "safe route" demonstrated she was content with what she videotaped because it was familiar to the students and she would not have had additional stress trying to help them be comfortable with her preferred structure.

Research addressing candidates' reflection on their practice using visual recordings suggests videotaping promotes teachers' personal growth (Gibbons & Farley, 2019). In addition, Cochran-Smith, Piazza, and Power (2013) reported that teacher educators believed videotaping candidates had educative value. However, this study found three out of nine participants' decisions about what was represented or demonstrated in their edTPA were negatively impacted by the video component. Two of them experienced this impact in their decision of which students were included in the recorded videos of their teaching. The difference in when they described this impact occurred was interesting because no other literature had provided evidence that candidates' identified being impacted in the moment of their demonstration of teaching. Part of the reason this might not have been found by other studies was that candidates' perceptions had not been studied enough (N. Henning et al., 2018). However, research exists that studied the impact of candidates videotaping their teaching on their practice. Xiao and Tobin (2018) suggested one possible negative of having candidates videotape their teaching was the tendency of candidates to produce "teacher-centered, overly performative, and 'teacherly' lessons" (p.

342). These researchers went on to suggest videotaping one's teaching was a valuable experience that promotes growth, but the production of teacher-centered representations were one possible drawback teacher education programs needed to be aware of and support candidates reflection process. Lucy and Katie are good examples of Xiao and Tobin's warning. Lucy described the impact during her planning of what would be demonstrated. Katie described the impact occurring while she was teaching. Lucy and Katie also had differing experiences of how the video impacted how they taught. Similar to the video component's impact on who they taught, Lucy was impacted in her planning stages and Katie was impacted while enacting her teaching. They identified the video component impacting them because their representations did not align with their beliefs. For example, in the first interview Katie suggested teachers were facilitators and *Teaching is Engaging in Community*. When she discussed the video artifacts from the edTPA, she identified them as having impacted her demonstration of teaching because it contributed to her teaching demonstration not being aligned with her beliefs. Rather than engaging in dialogue with the students, her teaching became unidirectional and she talked at the students. Like Lucy, Gwen also expressed the video component impacted her planning of her lessons. However, since Gwen was given her lessons by her cooperating teacher, it might be more accurate to suggest Gwen was more accepting of the cooperating teacher's lessons because they would make it easier to video tape students. This last idea, that the video component of the edTPA impacted Gwen to be more accepting of the cooperating teacher's lessons, intersects with her perception of the edTPA. These findings align with De Voto and Thomas' (2018) conclusion that candidates and programs were often ill-equipped to meet the edTPA's technological requirements and that it was necessary to support candidates with organizational and policy resources and structures. A great example of the impact of this support might be found in Nick's student teaching

experience. It is likely Nick never mentioned the edTPA's video component or his perception of the edTPA as impacting his demonstrations and representations because he had supportive cooperating teachers who gave him freedom to enact his beliefs.

Conceptions of the edTPA

Though each participant expressed implicit and explicit conceptions of the edTPA, only two suggested their conception of the edTPA explicitly impacted their representations or demonstrations of teaching in their portfolio. That the edTPA explicitly impacted candidates' representations was one of Meuwissen and Choppin's (2017) major findings. However, this study found participants' conceptions of the edTPA were less impactful when compared to other contextual factors. As mentioned in the discussion about the video component, participants' conceptions of how the video component was be evaluated impacted their representations and demonstrations. However, since I identified the video component as its own theme, those conceptions will not be reanalyzed in this section. This theme arose out of conversations around what participants demonstrated as their teaching in their videos. Both Jacob and Meredith submitted a video clip that they identified as having something wrong in it. Jacob submitted a video in which several students were not cooperating well in their assigned group. In the video Jacob was clearly frustrated with the group, whom he described as his "highest level readers." He even asked in the second interview if I noticed his frustration and described himself as being mad at the student causing the issue in the group. I told him I had noticed his frustration in the video because of his tone of voice. None of the other participants had demonstrated such frustration in their video, nor had I seen such frustration in edTPA portfolios I had assessed as an evaluator. His reaction to the students led me to ask why he chose to keep this clip in his portfolio. He responded by saying:

> Because teaching isn't ever perfect. I wanted to show how I could bounce back from something that wasn't going perfectly. I didn't want to submit this picture-perfect image and have some fake comments like, "Hey you're doing great, you know like blah, blah, blah." I felt like submitting this and now that I look at it, I'm glad I did, but it gave me those opportunities to talk to people about some actual constructive criticism on how to handle situations like that better. Whereas, if I would have just ignored the fact that happened and submitted something that looked like it was in candy lane or something, it wouldn't have helped me. It was kind of like looking for help.

The use of phrases like "picture-perfect," "fake comments," and "candy lane" suggested Jacob was aware that he could have, in the words of Meuwissen and Choppin (2017), "sanitized" his representations. However, these statements also make it clear he viewed the edTPA as a learning opportunity. Jacob could have recorded his next lesson or even cut the video short, so it did not show him becoming frustrated with a group arguing with one another. Rather than sanitize his representations, he actively chose to include evidence of his teaching that might not put him in the best light. His explanation for why he included this teaching event's in his portfolio was that he wanted to receive "actual constructive criticism on how to handle situations like that better." He even described his inclusion of this tense moment as "kind of looking for help." Meuwissen and Choppin did not have a category for this type of representation in their framework. Though one might argue it fits their "confessional approach," I do not believe it fit in that schema because Jacob explained in the interview that he included this experience because of his hope to receive feedback, not specifically explain how he grew from the experience. Later in the second interview he described himself as being "glad" for including this representation because he thought representing himself in this way brought him into contact with others who provided him

support. It became clear that Jacob's representation did not fit Meuwissen and Choppin's framework.

His comment that the edTPA gave him an opportunity to "talk to people about some actual constructive criticism" was an interesting one. First, it was interesting because SCALE stated in their edTPA handbooks that candidates completing the edTPA were not supposed to receive outside help. However, schools of education have implemented student-teaching seminars that included conversations about the edTPA or other forms of support (Burns et al., 2015) and teacher educators have adjusted their teaching to include preparation for the edTPA (Countryman & Stone, 2015; Cronenberg et al., 2016; Donovan & Canon, 2018; Noel, 2014). Second, as I will discuss further in the next chapter, Jacob's example might provide a way to better use the edTPA as a formative assessment in some settings.

The second participant who expressed whether their perception of the edTPA impacted what they represented in their portfolio offers a glimpse of the complexity of whether this impact can be determined. Early in the second interview, I asked Meredith to consider if her representation of teaching aligned with her beliefs about teaching. Her response was the clearest articulation of the edTPA's impact on her representations. She responded:

> I am struggling with your question about what doesn't align. I don't know. I feel like if I did edTPA right wouldn't it go with what [I believe]. I don't know if I'm not seeing something that I should be seeing, but I don't see something that didn't go.

It is clear from this statement that Meredith perceived that the edTPA allowed candidates to represent themselves as teachers in many ways. I would argue Jacob felt similarly, and other participants who described their beliefs and representations as being aligned, felt similarly. These conclusions are consistent with what Sato (2014) considered one of the strengths of the edTPA,

that it "attempts to straddle [differing] conceptions of teaching, expecting strong student engagement in learning activities" (pp. 427-28). One might even conclude the edTPA is exposing student teachers to the idea that there is not one correct path of teaching.

Despite Meredith's clear statement, later in the second interview, when Meredith was reviewing her writing about the video evidence of feedback given to her three focus students, she complicated her previous statement about her perception of the edTPA. At the end of the interview Meredith asked me what I thought about her edTPA. In my response I mentioned her inclusion of a video clip and written reflection on the clip that did not seem to fully address a prompt in the Task 3: Assessment Commentary. In the video Meredith chose to reteach the lesson the student misunderstood rather than provide substantive feedback and next steps. In her writing on the event, she wrote frankly about the student's weaknesses, how she chose to address them, and what changes she would make to her instruction to better support low performing students. I suggested I was surprised by her inclusion of the clip and her honest writing about what happened. She responded to my statement saying, "I wasn't going to include that, but [a mentor] said 'it was better to explain what didn't work and why than to just avoid it and hope they don't notice.' She helped me figure that out." This statement seemed to complicate her previous statement about what it meant to do the edTPA "right." However, I do not think it contradicted her previous statement. Though it clearly provided evidence that Meredith's perception of what the edTPA measured could have or did impact her representations of teaching in other places in the portfolio, it does not suggest she did not feel comfortable representing herself as a teacher on the assessment. Her statement demonstrates the importance of support from people like Meredith's mentor, who was one of Meredith's former instructors, practicum supervisors, and was also an edTPA evaluator for IU. Meredith might have initially considered

sanitizing her approach but input from a trusted person gave Meredith the confidence to represent her exact experience. Meredith's initial response, before her mentor gave her advice, clearly fit into Meuwissen and Choppin's sanitized approach. The mentor's advice moved Meredith to take a more confessional approach to the edTPA.

One additional student expressed an explicit conception about constructing her edTPA; Jonna described her portfolio has having to be perfect. She even suggested that she considered how to represent a lesson gone wrong. This was an ironic statement because she mentioned in her second interview that her student ran out of the room after she had finished recording one of her video clips. She did not explicitly represent this in her portfolio. However, she did mention in her analysis of changes she would make to her instruction that the student needed more behavioral supports in order to stay focused on learning. These changes were mentioned in response to other things like his ability to focus after being distracted or that too many academic supports caused distractions that prompted issues with behavior. Her conception of the edTPA led her to take what Meuwissen and Choppin's categorize as the rationale approach to the edTPA. Jonna only included evidence linked to the rubric criteria and forsook the larger context of her student's behavior. Despite discussing the student's difficulty in staying on task during a particular lesson, she did not divulge that her suggestions about behavioral supports were also influenced by the student running out of the classroom.

Conclusion

This concludes the major themes of how participants decided to represent their teaching found throughout the interviews. There were minor themes as well; for example, participants often mentioned their students as impacting their teaching and curriculum choices. However, I chose not to include the students as a major theme impacting participants' representations

because these minor themes were consistently described within one of the major themes. For example, multiple participants suggested students' reading levels impacted their planning of lessons and enactment of lessons. These were what might be considered routine considerations for any teacher; therefore, I did not consider them impactful on what participants chose to represent as their teaching. Eliza was an example of one participant who described students' "low reading levels" impacting her teaching. Due to the students' reading levels, she expressed not feeling comfortable setting students free to complete the heavily prescribed and strictly paced lessons because she needed to provide more support for these students. These student required her "to supplement class readings" and the result was that "day['s lesson] just took a long time for them to even look at the different text features." The effect of her provision of additional supports to students meant the students did not complete the activities or lessons for that day. Eliza was unable to finish these activities and lessons the next day because the strictly paced curriculum pushed on to a new lesson. From this example, one can see that it was the pace of the prescribed curriculum, not the students' reading levels, that impacted Eliza's teaching and therefore what she had available to represent as her teaching on the edTPA. In the second interview she suggested, as she wrote in the sections of the edTPA, that making adjustments to the pace of the lessons would have helped students learn how to write a better argumentative essay.

Other themes, like feeling tied to their created lesson plans or their inexperience as teachers, were also expressed. Similar to the aforementioned theme of students, these themes were only expressed in passing or described within the framework of a major theme. For example, Jonna suggested in the second interview that she should have adjusted her lessons more quickly to address her student's needs more effectively. When I asked her why she did not make

this adjustment, she stated, “I would say I felt tied to [my plans] because of the edTPA. I felt like I wrote these four lessons and I needed to keep as close as possible to it." Her reference of the edTPA suggested it was primarily her conception of the edTPA, not the lesson plans, that shaped her demonstration. Alongside this comment regarding her lesson plans, Jonna had previously mentioned while doing the edTPA that she believed her portfolio needed to be perfect or perfectly aligned to itself. Therefore, I categorized these statements under her conception of the edTPA rather than her need to stick to her lesson plans. Each candidate expressed minor themes unique to their situation. There was not enough evidence across the nine participants that these themes were not unique or limited experiences.

The major themes presented in this section were:

1) Cooperating Teachers (Gwen, Meredith, Nick)
2) Heavily Prescribed and Strictly Paced Curriculums (Maria, Eliza, Lucy, Nick)
3) edTPA’s video component (Katie, Lucy, Gwen)
4) Perceptions of the edTPA (Jacob, Meredith, Jonna)

These themes suggest candidates’ representations of their teaching on the edTPA can be greatly impacted by their contexts as much as or even more than components of the edTPA or their perceptions of the edTPA. This is consistent with Clayton’s (2018a) finding that some candidates’ expressed that their contexts had a significant impact, both positive or/and negative, on their edTPA experience and their student teaching experience. Similar to Bacon and Blachman’s (2017) findings, the third and fourth themes give evidence that Meuwissen and Choppin’s (2017) observation that candidates were often unsure of how evaluators would assess their representations was correct. However, this study found that other contextual factors played as large or larger role in shaping candidates’ representations. For example, Meredith described

being impacted by her cooperating teacher and her perception of the edTPA. Despite Meredith's statement that "if I did edTPA right wouldn't it go with what [I believe]," she was unable to align her demonstration with her beliefs because of the influence of her cooperating teacher. Though the video component impacted several participants' decision-making of which students to include in their video component and two participants' had their teaching impacted, the themes of cooperating teachers' and heavily prescribed and strictly paced curriculums had a greater impact on their representations. Also, Meuwissen and Choppin (2017) and Bacon and Blachman's (2017) observation that the impact of candidates' perceptions of what evaluators assessed does not necessarily mean the edTPA as an assessment was at fault for candidates' perceptions of the edTPA. For example, Meredith received affirmation from her mentor that she could address the shortcomings of the video and pass. Nick's positive experiences with his cooperating teachers and his description of the possible impact of a prescribed curriculum is the exception that proves the rule. His example suggests that if candidates received quality support, they might be more likely to represent their beliefs about teaching and learning and the actual events occurring in their student teaching experience.

The idea that the edTPA did not necessarily represent candidates' conceptions of quality teaching should not surprise teacher educators. Several studies have provided evidence of candidates comparing what they did in the edTPA with what they would have liked to do (e.g., Behney, 2016; Bacon & Blachman, 2017; Meuwissen & Choppin, 2015; 2017). Unlike Meuwissen and Choppin's (2017) conclusion that "candidates' conceptions of teaching quality are at least somewhat contingent upon what is named and prioritized in a high-stakes test that only partially captures the construct's dimensions," these studies gave evidence, albeit while researching different questions, that candidates were able to identify the difference between what

they represented on the edTPA and their best practices or high-quality teaching. Similar to Bacon and Blachman's (2017) participants, the present study's participants identified benefits in learning directly associated to the requirements of the edTPA. In the present study this included participants describing the feedback required in several prompts as "detailed" and "good" feedback and as having impacted the feedback they gave to students to be more robust, detailed, and helpful than what they had previously given. Though several suggested that giving the level of detailed feedback the edTPA expected might be unrealistic with 100 students, they believed the edTPA promoted their giving of better feedback. This example provides evidence that Meuwissen and Choppin's (2017) claim that the edTPA impacts candidates' conceptions of teaching quality is impacted by their exposure to the edTPA, but it is not a negative impact like they suggested. This is a particularly important finding because earlier research on teacher candidates' evaluation practices suggested candidates tend not to follow practices recommended by assessment experts (Kimori, 2019). The present study found participants adopted high-quality practices and identified in the interviews that these practices were better than their former practices. Analogous to Bacon and Blachman (2017) conclusions this study suggests candidates have more complex understandings of the edTPA and their own teaching than some have given them credit for.

Candidates' decisions about what to represent were impacted more by contextual factors than the edTPA or its components. Most candidates in this study considered their representations not fully aligned with their beliefs because of contextual factors. However, they were often able to find ways to demonstrate aspects of their beliefs. For example, Gwen incorporated critical questions into her whole class readings with the students or her choosing to analyze an assessment she liked more than the quiz in the prescribed curriculum. Others, who felt more

constrained by contextual factors, found space in the edTPA to critique their representations and make suggestions for next steps that were more closely aligned to their beliefs. For example, Meredith emphasized her desire to use centers in this section and critiques her cooperating teacher for not allowing her to do centers in the interview. Even when neither of these things happened, finding spaces to represent their beliefs or making suggestions that aligned their representations to their belief, participants still identified different conceptions of quality teaching in the interviews than what they represented in their edTPA. Lucy's example is particularly important because she is the only participant whose next steps were presented as next steps within the constraints of her context. Though this could fit what Meuwissen and Choppin (2017) called "less an authentic indication of their practices than an indication of how they interpret and respond to required performance criteria," it is not a bad thing that she knows how to adjust her teaching to respond to required performance criteria. What it does not say about Lucy is that she does not understand what high-quality teaching looks like and its complexity. Her interview clearly demonstrated a sociocultural understanding of teaching. Though her representations did not fully align with her beliefs, it is likely, had she received proper support and guidance from her preparation program and was not constrained by a particular fluency assessment, she would have enacted her beliefs. Her recognition of the ways her beliefs and practices did not align and ideas for bringing them together in the interviews was an excellent indication that her conceptions of quality teaching are not contingent on the edTPA.

This study found that participants' representations were consistent with their typical practice. However, their typical practice was often misaligned with their beliefs. Therefore, their representations were consistently misaligned with their beliefs about effective teaching. The cause of this misalignment was most often contextual constraints. Nick's lack of contextual

constraints further supported the idea that contextual factors played a large role in shaping what candidates decided to demonstrate and represent on the edTPA. These findings support Meuwissen and Choppin's (2017) conclusion that candidates' representations were not consistent with their typical practice. They were correct to suggest that candidates make very practical decisions about their representations on the edTPA, but it was not to meet their perceptions of the edTPA's rubrics as much as it was to mold themselves into the types of teachers their cooperating teachers and school corporations seemed to value and the prescribed and strictly paced curriculums they were given. Further evidence of participants' intentional shaping of their teaching to fit others' criteria rather than match their actual beliefs was something Gwen mentioned in the second interview. Gwen felt that in her first-year teaching, her administrators wanted to see a similar structure to what she did in her edTPA. Therefore, she suggested the safe route she took during her edTPA was effective in her first year of teaching. This does not mean that she did not find ways to incorporate her conceptions of effective teaching. For example, she took a risk early in the fall of her first year of teaching to use readers' theatre with her students. When her administrator saw the positive impact on Gwen's students' learning, the administrator suggested Gwen continue to use readers' theatre. Gwen's experience as a first-year teacher where she perceived administrators were evaluating teachers on a scale similar to the edTPA suggested the edTPA might be useful in helping student-teachers understand how to shape their teaching to fit the different stakeholders or audiences observing their teaching.

Lastly, there has been a recent study published suggesting student teachers have resisted scripted curriculums by appropriating the edTPA as tool for aligning their teaching with their ideals. Ahmed (2019) found that two graduate student teachers used the edTPA as an excuse to teach something other than the scripted curriculum because they found the scripted curriculum

was lacking in its ability to teach literacy effectively. Ahmed's study gives evidence that candidates can represent their ideals and beliefs on the edTPA. In order to do this, candidates require support and freedom. In the case of Ahmed's candidates, they received support and encouragement from their teacher preparation program to change their teaching. In my study, Nick received support and freedom from his cooperating teachers. In both instances, support and encouragement were required for candidates to feel comfortable aligning their edTPA representations with their beliefs.

Chapter Five: Conclusion

In the previous chapter, I presented data collected through two semi-structured interviews with each of the study's nine participants. These interviews used metaphor analysis and stimulated recall to investigate participants' beliefs about teaching and learning and how these beliefs related to their representations of teaching and learning on the edTPA. Researching the beliefs of participants was important for the field of teacher education because teachers' beliefs influence their classroom decisions and behaviors (Fives & Buehl, 2012; Nespor, 1987; Pajares, 1992), are excellent predictors of future decisions (Bandura, 1986), and precursors to action (Fives & Buehl, 2012). Since beliefs are considered to impact practices, it seems reasonable that a candidate's beliefs might provide insight into their preparedness to enter the field. In the field of teaching, often considered stressful and anxiety-ridden, beliefs become even more likely to shape teachers' actions (Nespor, 1987). Since the edTPA is being used in over 40 states as a gateway into the field measuring teacher preparedness, this study sought to investigate how candidates' representations and demonstrations of teaching in the edTPA aligned with their beliefs.[16]

The literature review demonstrated that very little research had investigated candidates' representations of teaching on the edTPA. Meuwissen and Choppin (2017) produced the only research specifically investigating candidates' representations. Other researchers focused on candidates' perceptions (e.g., Behney, 2016; Clayton, 2015, 2018a, Denton, 2013). Clayton in N. Henning et al.'s (2018) response to Whittaker et al.'s (2018) defense of the edTPA reiterated Clift and Brady's conclusion that candidates' perceptions continued to be underrepresented in research investigating student teaching. Candidates' perceptions have been underrepresented

[16] On some level, this study is concerned with predictive validity of the edTPA.

because most research on the edTPA focused on teacher educators' perceptions of the edTPA, historical and policy analyses, and effects of its implementation. Though Clayton (2015) was primarily focused on candidates' perceptions, her research highlighted candidates' inability to demonstrate and represent their teaching on the edTPA. She concluded that candidates "continued to experience the edTPA in ways they perceived narrowed the scope of their learning" (p. 24). Studies like Denton (2013), Clayton (2015, 2018b), and Meuwissen and Choppin (2015, 2017) suggested that the edTPA's prompts and rubrics narrowed candidates' scope of teaching and might reify "what quality is in teaching for those entering the profession" (Clayton, 2018b, p. 24) and in the case of Meuwissen and Choppin (2017) might cause candidates to alter their representations in the edTPA.

However, none of these studies (Denton, 2013; Clayton 2015, 2018a; Meuwissen & Choppin, 2015, 2017) investigated candidates' actual beliefs about effective or quality teaching. Though candidates' representations might reflect their conception of quality teaching (e.g., Ahmed, 2019), they are not necessarily corollary. In Ahmed's study, candidates were found to explicitly reject the scripted curriculum and used the edTPA as a tool to demonstrate teaching more in line with their beliefs. Although Meuwissen and Choppin (2017) gave evidence that candidates had adjusted their teaching and possibly their representation of their teaching in order to fit what they perceived as the best way to pass the assessment, their study did not explore candidates' understanding of teaching quality. Therefore, this study sought to build on their research by investigating whether candidates' beliefs about teaching and learning were actually related to their representations on the edTPA.

Data From the First Interview

Before addressing the research questions, data presented from the first interview related to participants' beliefs about teaching and learning provided the basis for the investigation of the study's research questions in the second interview. The study made two significant conclusions after the first interviews,

1) Most participants' metaphors and beliefs aligned with their explicit statements about teaching and learning
2) Participants often identified additional overarching metaphors as being related to their metaphor.

Alignment Between Metaphors and Explicit Statements

The study found that seven out of nine participants' metaphors and beliefs about teaching and learning aligned with their explicit statements about teaching and learning. The two candidates whose metaphors and explicit statements did not align categorized their created metaphor as fitting Alger's (2009) *Teaching is Guiding* overarching metaphor. However, these two participants' descriptions of what it meant to be a guide were entirely different. Both participants routinely used the language of guiding in their first interview. After coding their interviews and organizing the codes into themes, I concluded these two participants had described teaching in ways that did not align with the idea of *Teaching is Guiding*. For example, Jacob described being a guide as providing all of the steps for the students and providing them answers. When asked to answer the questions, "What is teaching" and "What is learning," he assigned students the responsibility of listening and the teachers the responsibility for passing along information and knowledge the teacher thinks students need. Maria suggested guiding meant helping students with learning, but "also learning from them and with them." She also suggested she was towards the front leading, but it was "possible that my students might be

ahead of me … with some other aspect of Spanish" and that "it's my job to try and help make sure everyone can reach where we are trying to go." Her language in these quotes emphasized collaboration. Both the student and teacher were learning from one another. Although one might argue they were still guides, just on opposite ends of the spectrum, both Jacob and Maria's descriptions of teaching consistently aligned closer to different overarching metaphors. This did not lead to negative conclusions about either candidate, but it did inform the analysis of the second interview.

Though participants generally represented their beliefs when answering questions about their actual practices and their ideals about teaching and learning, they periodically used language that was not fully aligned to their beliefs. For example, Lucy had chosen *Teaching is Engaging in Community* as her overarching metaphor yet had previously described teaching as "guiding students to develop their knowledge and literacy in a variety of subjects." Like other participants, she went on to clarify her statements. Lucy emphasized a sociocultural orientation of teaching and learning. The examples of Jacob, Maria, and Lucy demonstrated that candidates may struggle to consistently describe (Green, 1971) or be aware of their beliefs (Richardson, 1996) about teaching because of the implicit and explicit nature of beliefs (Fives & Buehl, 2012). Yet, these inconsistencies did not mean that their beliefs about teaching and learning were necessarily insufficient or negative. It meant that articulating one's beliefs about teaching and learning can be difficult. Since this difficulty existed without the pressure of a standardized test, it was not unexpected that candidates struggled to represent their beliefs on the edTPA.

Additional Metaphors Shape Their Created Metaphor

The study also found that participants often identified additional overarching metaphors as being related to their created metaphor. This was consistent with Sfard's (1998) suggestion

that a single metaphor rarely captured a participant's beliefs in totality and Green's (1971) proposal that people's beliefs might be incompatible or inconsistent. Generally, participants identified their metaphor as being constructed of several overarching metaphors. For example, Meredith created the metaphor of teaching as juggling. When asked at the end of the interview to place it in one of Alger's (2009) six overarching metaphors, she suggested she would "have to build [her] own category because my metaphor is of me juggling all of this." Yet Meredith, like each of the other participants who initially identified multiple overarching metaphors, when asked to pick only one metaphor, was able to identify one primary overarching metaphor. She justified her decision by suggesting *Teaching is Providing Tools* incorporated other overarching metaphors and she believed students needed to be in control of their learning.

Other participants expressed a hierarchical progression between primary, secondary, or tertiary overarching metaphors. Often these participants felt their created metaphor mostly aligned with a particular overarching metaphor, but there were particular parts of an overarching metaphor's definition that did not mesh exactly with their beliefs about teaching. For example, Gwen articulated a difficulty deciding between *Teaching is Guiding* and *Teaching is Nurturing*. At the beginning of the interview, Gwen described the teacher as a compass. She described a compass as something a person used "to guide you in the right direction. It doesn't give you the exact coordinates. It just gives you a direction to go into." She then reiterated that teachers were compasses that gave students direction but did not choose them their destination. Both Gwen and Meredith's examples demonstrated participants' cognizance of the complexity of their beliefs about teaching. These examples might also suggest that candidates were still forming their beliefs. Fives and Buehl (2012) in reviewing the literature on teachers' beliefs suggested teaching experience may contribute to changes in teachers' beliefs. Though research suggests

candidates' beliefs are stable over the course of their teacher preparation (e.g., Lortie, 1975; Richardson, 1996, 2003) and might be stable during their professional lives (e.g., Haney & McArthur, 2002; Moseley et al., 2002), the literature also suggested teachers' identities and beliefs continue to evolve into their professional career (Alger, 2009; Doyle, 1992; La Paro et al., 2009).

Deciding What to Represent and Demonstrate and Its Relation to Participants' Beliefs

This study found that all nine candidates consistently identified demonstrations or representations of their teaching in their edTPA portfolio that were aligned or misaligned with their beliefs expressed in the first interview. There were four particularly important findings underneath the finding that candidates identified alignments and misalignments in their edTPA.

1) Candidates were able to identify when their representations aligned with their beliefs.
2) Candidates identified four constraints when their representations and demonstrations were not aligned with their beliefs.
3) The external constraints (Cooperating Teachers and Prescribed Curriculums) were as or more impactful on candidates' representations than the internal constraints (edTPA's Video Component and Participants' Perceptions of the edTPA).
4) Most candidates used sections of the edTPA asking for candidates to write about their next steps or discuss adjustments they would make in their teaching to bring their representations into alignment with their beliefs.

Theoretical Framework for Understanding Importance of Contexts

The initial theoretical framework for this study, that teachers' beliefs and practices had a complex and reciprocal relationship and that beliefs filter, frame, and guide practices (Buehl & Beck, 2014), justified why exploring candidates' beliefs were relevant for understanding their

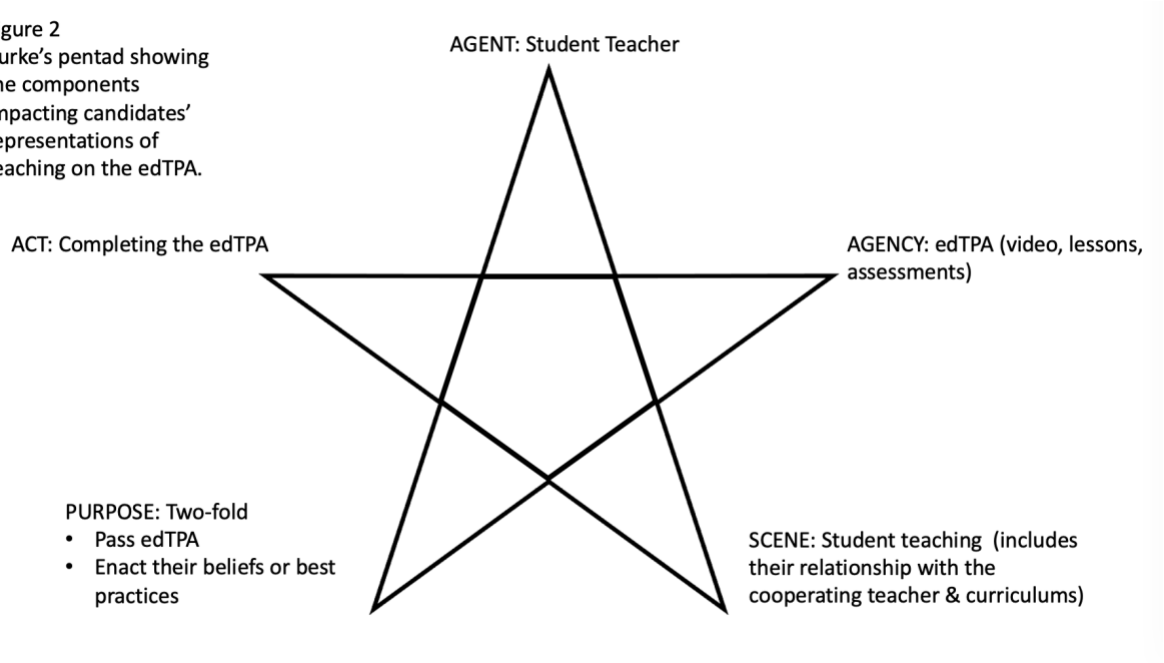
practice. It also helped explain the complex relation between participants' stated beliefs and their practices by recognizing how internal and external factors might cause variations of or incongruencies in the relation. Underlying this framework seems to be a sociocultural theory of development and learning. For example, Buehl and Beck (2014) suggested the "strength of this relationship [practices and beliefs] may vary across individuals and contexts as well as the type of beliefs and practices being assessed" (p. 78). Their recognition that contexts played an important role in the implementation of teachers' beliefs aligns with the sociocultural emphasis on contexts and settings in one's development and learning.

Sociocultural approaches to cognition and learning emphasize the fundamental role of contexts, particularly social contexts, in learning (Greeno, Collins, Resnick, 1996; Seely, Collins, & Duguid, 1989; Vygotsky, 1978). Relationships between people are essential for human development. For example, when someone is learning for the first time they often rely on people with more experience to teach or guide them (John-Steiner & Mahn, 1996). However, this study also found that participants were impacted by additional, though less impactful, contextual factors in their ability to align their beliefs with their demonstrations and representations in their edTPA portfolio. For example, the video component of the edTPA impacted candidates' representations of teaching in their portfolio. To better understand the impact of differing components of the candidates' activity I turned to Burke's (1945) theory of human action and motivation. It helped clarify why cooperating teachers and prescribed curriculums had larger impacts on candidates' representations of teaching.

Burke (1945) introduced five elements for investigating human action and motives. These five elements included *Act* (what was done), *Scene* (where it was done), *Agent* (who did it), *Agency* (how it was done), and *Purpose* (why it was done). This pentad has been organized as a

heuristic in the shape of a star (See Figure 2). The pentad helps explain the relation between these different elements of action. In particular, Burke points out that the *Scene* is a container of sorts. It contains both the *Act* and the *Agent*. Though it impacts each of the components of the pentad, it directly impacts the *Agent* and the *Act.* He argued that because the *Agent* is contained by the scene, the *Agent* takes on the attributes of the *Scene*. Regarding the relation between the *Scene* and the *Act*, Burke suggested "there is implicit in the quality of a scene the quality of the action that is to take place within it" (pp. 6-7). The uptake of Burke's theory is that the *Act* will be consistent with the *Scene* because the *Scene* contains any potential *Act.* Therefore, the *Scene* limits or affords what the *Agent* can do, and the *Act* can be.

Figure 2
Burke's pentad showing the components impacting candidates' representations of teaching on the edTPA.



This might explain why cooperating teachers are widely considered to have the largest impact on candidates' student teaching experiences and learning (e.g., Clarke et al., 2014; Cuenca, 2011; Weiss & Weiss, 2001). The candidates not only rely on the cooperating teacher because they have more experience, but because the cooperating teacher shapes what Burke labeled as the *Scene.* This means cooperating teachers would impact candidates' representations

in their edTPA portfolio more than the tools of the *Agency* used to complete the *Act.* The tools of the *Agency* (how the *Agent* does the *Act)* are also shaped by the *Scene.* Therefore, it makes sense why the video component would not be as impactful on candidates' representations as the cooperating teacher and prescribed curriculum.

Research investigating the relationship between student teachers and cooperating teachers corroborates these findings as well. Generally, the relationship has a hierarchical shape and candidates have long recognized that the cooperating teacher held the power in the classroom (Shantz & Ward, 2000). Not only did this power refer to the cooperating teacher's ability to shape how the candidate taught but included the power of denying or hindering candidates' induction into the profession (Duquette, 1996). This asymmetrical power structure can put the student teacher in a position of dependency that might constrain their ability to enact their pedagogical beliefs and commitments. Again, Burke's Pentad identifies how the *Scene* constrains the *Purpose.*

Burke's pentad helps explain why candidates' ability to enact their beliefs in their edTPA portfolio were significantly constrained and why and how cooperating teachers and prescribed curriculums might have significantly impacted the candidates' student teaching and their representations of their student teaching in their edTPA portfolios. Though the edTPA's components (video, lesson plans, and assessments) might influence the *Act* of completing the edTPA, they do not have the same power as the *Scene.* Therefore, the video component and perceptions of the edTPA had a much smaller impact on candidates' representations of teaching in the edTPA. Though Burke seems to suggest the *Scene* cannot be influenced by the *Agent* or the *Act*, it would seem that the *Scene* could be altered slightly or for a moment if the *Agent, Agency, Act,* and *Purpose* are aligned. This would probably take a significant effort by the *Agent*

to bring these other components of the pentad into alignment, but it might be possible to train candidates how to be these type of *Agents* (e.g., Ahmed's (2019) candidates).

Candidates Can Identify Their Beliefs

After the first interview, I determined that seven out of the nine participants' implicit and explicit beliefs were aligned. I drew this conclusion by comparing their created metaphor, their responses to questions about teaching and learning, and their categorization of their created metaphor within one of Alger's (2009) overarching metaphors. When performing the stimulated recall, participants consistently identified representations or demonstrations that did or did not align with their beliefs. For example, in the first interview Eliza identified *Teaching is Guiding* as the overarching metaphor that her created metaphor fit. When she spoke in the first interview about teaching, she described herself as a guide because

> I don't feel that I can ever tell someone something and they're going to be like, "Yes, absolutely." I think people need to create their own meaning. In my classroom, they're trying to create meaning from the books I present to them, the articles we read, the writing assignments I have them do. In my classroom, I think I can facilitate that creating of meaning for both themselves and the world. I can incorporate books and articles that I think will be meaningful for my students themselves based on their interests or their place in life.

However, when she was performing the stimulated recall in the second interview, she consistently pointed out that her representations and demonstrations rarely guided students nor was she able to "incorporate books and articles that I think will be meaningful for my students." In other places during the stimulated recall procedure she identified places where her representation aligned with her belief that *Teaching is Guiding*. For example, when reading

through her writing about feedback given to students in Task 3, she described her demonstration of feedback as aligned with her belief that *Teaching is Guiding.* She said these were aligned because her feedback highlighted the strengths of students' essays and was "trying to get them to go one step further in their thinking." She further described the feedback as being one of the spaces she could represent her beliefs when she said,

> I tried to provide feedback that would guide them in their thinking. Go a little further in their thought process … even if we didn't have as much time to do so, I tried to do it with their feedback.

Eliza's ability to identify her beliefs and where she did or did not incorporate them in the edTPA is representative of the majority of participants in this study. This finding suggested teacher candidates were able to identify their beliefs when asked to reflect on their practices, either by reading through their lesson plans, reading through reflections of their teaching, or examining artifacts from their teaching. It gave evidence supporting Buehl and Beck's (2014) framework for understanding the relation between beliefs and practices as complex and the enactment of beliefs as being supported or hindered by candidates' contexts.

Four Constraints

Eliza's thoughts above on her feedback alluded to her not having much time to guide students in their thinking. When asked why she did not have the time to guide students, Eliza described a prescribed curriculum that significantly constrained her demonstration of teaching. Other candidates articulated similar constraints impacting their ability to demonstrate and represent their beliefs in their edTPA portfolio. Fives and Buehl (2012) reviewed a number of studies demonstrating that the implementation of beliefs were negatively impacted by things like required curriculum or tests and actions of colleagues like cooperating teachers. The present

study found that participants identified four major constraints that prevented them from fully representing or demonstrating their beliefs on the edTPA. Two of the constraints were external to the edTPA and two were related to the edTPA. However, only one was a component of the edTPA. These constraints included

1) Cooperating Teachers
2) Heavily Prescribed and Strictly Paced Curriculums
3) The edTPA's Video Component
4) Conceptions of the edTPA

Factors external to the edTPA were as impactful if not more impactful on participants' representations than factors related to the edTPA because the external factors shaped the entire portfolio. Burke's pentad for understanding action also helps explain why candidates might have been impacted more by their cooperating teacher and prescribed curriculums than the video component or candidates' perceptions of the edTPA. Participants who were impacted by external factors, either their cooperating teachers or/and a prescribed curriculum, described not being able to represent their beliefs because they did not align with the cooperating teacher or the curriculum. In a similar way to the *Scene* in Burke's pentad, the cooperating teachers and prescribed curriculum could act as a container for the candidates' action. The result, candidates' plans, demonstrations, and assessments were not aligned with their beliefs. Here is representative evidence from each constraint. Meredith described her cooperating teacher as not allowing her to use centers, which she suggested would have allowed her to provide tools in more individualized ways to her students. Eliza, as previously mentioned, described the prescribed curriculum as preventing her from guiding students as she believed best. Katie described her teaching demonstration in the edTPA as having been significantly shaped by the video component in Task

2. The last major constraint influenced some participants from representing possible teaching mistakes. Jonna described her conception of the edTPA while completing her portfolio as needing to be perfect. However, other participants conceptions promoted them to present their or their students' mistakes as part of their portfolio. Both Jacob and Meredith included aspects of their teaching in their portfolio some candidates might have not.

Contextual constraints were more impactful than edTPA related constraints

Though some candidates subverted their cooperating teachers or prescribed curriculums by making small changes in their teaching practices (e.g., Gwen stopping to ask students questions about the book or have students use skills they were learning to predict what would happen next in the book), overall their representations were impacted to such a degree that they expressed frustration with their student teaching context. None were able to do what Ahmed's (2019) participants did by using the edTPA as a tool to break free from a prescribed curriculum. My participants' inability to break free might have been as much their perception of the inflexibility of the cooperating teacher and prescribed curriculum as much as the actual inflexibility of either. However, I concluded the inflexibility of the cooperating teachers and curriculum were their reality because of the way candidates described conversations with the cooperating teacher about doing something different than the cooperating teacher or the cooperating teacher also feeling constrained by the prescribed curriculum. The participants in the present study did not express what Behizadeh and Neely (2019) have suggested, that "candidates are too busy with the proceduralism of edTPA to address inequitable practices and structures within schools or to adapt existing curricula so it deeply connects to students' lived experiences and cultures" (p. 257). It was not the edTPA, but the contexts of the participants in this study.

Nick's positive experience provided a powerful counterexample to the participants who were impacted by the external constraints of how impactful these constraints were. Though he recognized his beliefs and representations were not fully aligned, he provided evidence that his cooperating teachers nor a prescribed curriculum constrained his representations. Rather, he described how his cooperating teachers helped him reflect on adjustments that aligned his teaching with his beliefs and that he represented in the edTPA's sections asking candidates to reflect and write about adjustments that could be made. His experience brings to mind how Burke's *Scene* can afford or limit opportunities of action. In Nick's case, his *Scene* (the cooperating teachers) afforded him opportunities other candidates' *Scenes* did not, which might have mitigated any concerns he had about the edTPA.

Although this study concluded that external constraints were more impactful because the cooperating teacher and heavily prescribed and strictly paced curriculum shaped participants' entire portfolio, it was clear from the interviews that these participants lacked the tools and support needed from the university to push against their constraining contexts. Only two candidates mentioned receiving support from people or seminars related to the university. Participants identifying the edTPA as having played a role in constraining their demonstrations or representations described its impact in isolated instances. For example, participants who described the video component as constraining were still able to represent their beliefs in the planning and assessment sections of the edTPA. These participants also suggested adjustments to their future teaching in Task 2 that aligned with their beliefs. Therefore, this study concluded that the actual components of the edTPA had a smaller impact on participants' representations than the external constraints. In cases where participants described their conception of the edTPA shaping their representations, this study found that conceptions of the edTPA were often shaped

by external factors. In this study, both Meredith and Jacob expressed positive conceptions of the edTPA because of support provided by the university. In the case of Jacob, this included a seminar that encouraged him to discuss the construction of his portfolio with others. In the case of Meredith, she received guidance from a trusted mentor, who evaluated the edTPA for the university, about how to represent herself in the portfolio. Jonna, on the other hand, discussed feeling like her portfolio needed to be perfect. In her case this meant following one's lesson plans and not adjusting them even when it became obvious the student needed additional behavioral supports. Therefore, this study concluded the edTPA could impact candidates' ability to represent their beliefs about teaching, but it was more likely that their representations were impacted by external constraints. In order to push back against these constraints, candidates need more support from the university. The university might have the power to change the way candidates' *Scenes* are constructed or help them utilize the edTPA to adjust the *Scene.*

Making Adjustments

Participants routinely suggested adjustments to their teaching in edTPA sections asking them about next steps or adjustments. These suggestions would bring their demonstrations and representations into alignment with their beliefs. For example, Meredith wrote about incorporating centers as a methodological tool in Task 2: Instruction Commentary Part 5: Analyzing Teaching. In the second interview, she described how her cooperating teacher would not let her use centers. However, in Task 2 she described how the use of centers would promote students and their abilities in more effective ways. Maria made a similar move by writing about her desire to incorporate the PACE method to improve student learning. Not only had Maria mentioned the PACE method in her first interview as being representative of effective teaching, but in the second interview she described the PACE method as something teachers acting as

climbing guides would use. Though the prescribed curriculum clearly constrained her ability to demonstrate a specific ethos and method of teaching, the edTPA provided space for her to articulate her understanding of quality teaching. What was written in these spaces might reflect what candidates actually believe about teaching and learning. Even when participants felt the edTPA's video component was the constraining factor, participants used the sections of the edTPA asking candidates to suggest adjustments or next steps to propose adjustments that were aligned with their beliefs. Sato (2014) argued that the edTPA allows for varying representations of teaching. This study demonstrated that not only does the edTPA allow for various representations of teaching, but it also gave space for candidates to push back against the external contextual constraints they faced.

This study acknowledges there is a need to assess and evaluate whether teacher candidates are prepared to enter the field. Over the last ten years there has been great debate within the field as to whether a portfolio assessment like the edTPA is capable of being the gateway for the field of teaching. Some of this argument relies on research of candidates' perceptions and representations. Though this study did not investigate whether participants were effective teachers, it did in some ways investigate the predictive validity of the assessment by interrogating the relations between candidates' beliefs and representations. There is enough research suggesting portfolio assessments are an effective tool for assessment (e.g., Popham, 2017; Tierney et al, 1991; Valencia & Au, 1997). Regarding the edTPA, there is also literature, though primarily introduced by SCALE affiliated researchers (e.g., Goldhaber, 2017; Pecheone, 2019), that suggested the edTPA was also an effective assessment for measuring and predicting candidates' future effectiveness. Though there is a significant amount of literature critiquing the edTPA's reliability, validity, and impact, the major finding of this study was that the edTPA

allowed candidates to demonstrate their teaching practices in a multitude of ways. However, they were not always able to represent their beliefs because of significant external constraints. Therefore, they consistently realigned their representations to their beliefs in the sections asking them to make adjustments to their teaching. This realignment was more likely to occur if they received positive support from trusted mentors and other teacher educators.

While I think the edTPA is a well-constructed assessment, its effectiveness hangs almost entirely on its implementation. If the edTPA is implemented well, it can be used to subvert external constraints. Although it can be constraining in some ways, if candidates receive robust support in their demonstration of teaching and completion of the edTPA during student teaching, they are more likely to represent what they believe about teaching. When this happens, teacher preparation programs will know whether their candidates embody the program's objectives. Fives and Buehl (2012) exhorted researchers not to dismiss the importance of beliefs when they are found to be incongruent with teachers' practices, but rather investigate why the incongruence exists. This study demonstrated that several possible reasons existed for the incongruence between candidates' beliefs and practices. Problematic contexts forced candidates to make compromises in ways that were not aligned with their beliefs about teaching. However, candidates also made thoughtful decisions on what they needed to do to pass the test. Therefore, this study found that Meuwissen and Choppin's (2017) suggestion that candidates' representations on the edTPA might be their conception of quality teaching was not often the case because constraints placed on students' demonstrations and representations significantly altered their desired representations. What was seen in this study was that the edTPA did not necessarily reveal whether candidates were prepared to teach, but reflected the context they were in. Connecting representations of candidates on the edTPA with their beliefs was an important

development for the field because the edTPA was developed and implemented in many contexts to assess teacher candidates' preparedness to enter the field.

Implications

The implications of this study are primarily concerned with the implementation of the edTPA and its use. However, they are relevant for any teacher education program seeking to measure candidates' effectiveness during their student teaching and preparedness to enter the field. The two theoretical frameworks guiding this study give impetus to these implications and their generalizability. Burke's (1945) pentad helps interpret candidates' actions and hint at what teacher educators, teacher education programs, and states using the assessment as part of their licensure requirements should consider doing in response to this study's findings. In addition, Burke's emphasis of the *Scene's* ability to contain the *Agent* and *Act* led these implications to focus heavily on ways to shape candidates' *Scenes* (their student teaching context). Buehl and Beck's (2014) framework for understanding the relation between candidates' beliefs and practices warrant why studying candidates' beliefs is important.

First, placing candidates in classrooms where they face external constraints to practice their teaching in one of the most important components of teacher preparation is problematic. Though this might be overcome through reflection and support from the preparation program's faculty and staff, it seems to be putting novices at risk. Recognizing the way cooperating teachers control the *Scene* of candidates' actions reveals the importance of providing candidates' *Scenes* where they can enact the practices the university values. Otherwise, an experience fraught with anxiety and stress and yet considered one of the most important components of teacher preparation (Darling-Hammond, 2006; Kaya & McIntyre, 2020; Parkes & Powell, 2015) will be less likely to be the experience candidates need. Candidates need to be placed in supportive

student teaching contexts where they can practice the skills learned and dispositions acquired during college (Treadwell et al., 2017). Programs cannot ignore the important role cooperating teachers play in the sociocultural development and actions of student teachers. Even when programs think they have matched a cooperating teacher and student teacher perfectly, the cooperating teacher might still constrain candidates' teaching (LaBosky & Richert, 2002). It is clear from this study that programs need to be seriously concerned about where candidates are placed.

One way to address this concern is by providing cooperating teachers with professional development opportunities to support candidates in their student teaching and construction of the edTPA. Seymour et al. (2018) found that less than 60% of cooperating teachers felt that they received adequate training to support their student teachers. Kissau et al. (2019) suggested that the cooperating teachers wanted more professional development like these. These professional developments need to be offered in creative ways by teacher education programs, face-to-face workshops and asynchronous and synchronous online modules should be considered for implementation. Kissau et al. and Seymour et al. (2018) both suggested, and I agree, that teacher education programs should seek to recruit cooperating teachers who completed the National Board Certification. Seymour et al. found a cooperating teacher who participated in their study made a connection between her experience with the NBPTS and the edTPA. The cooperating teacher suggested her familiarity with the NBPTS gave her a foundation for supporting the student teacher on the edTPA. In Burke's (1945) terms, this means the cooperating teacher knew how to structure the *Scene* so the *Agent* (the candidate) could more effectively accomplish the *Act* (completing the edTPA). Since the edTPA shares similar underpinnings and structures as the NBPTS, finding National Board Certified cooperating teachers might be one avenue of providing

candidates support. National Board Certified cooperating teachers might be more empathetic and naturally supportive of candidates because of sharing a similar experience.

Second, teacher education programs need to make sure the components of their program fully align what happens in the school of education with what takes place in the field. This study suggested that the teacher education program where the present study's participants graduated from, possibly others as well, still have work to do to align themselves. The edTPA may have promoted program alignment within school or departments of education, but programs struggle to identify supervisors, cooperating teachers, or school districts who share the same beliefs, goals, and values in the field. Research addressing programmatic implementation of the edTPA suggested the edTPA helped align programs (e.g., An, 2016; Hanley-Maxwell & Wycliff-Horn, 2017; Lachuk & Koellner, 2015; Ledwell & Oyler, 2016; Lys et al., 2014). Besides providing professional development opportunities and recruiting a certain subset of cooperating teachers, which will be discussed in the following implication, programs could make cooperating teachers a larger part of the teacher educator community. Anderson and Stillman (2013) recommend building relationships with cooperating teachers that make them part of the teacher education program's community. This might include having the triad (cooperating teacher, university supervisor, and teacher candidate) sit down together and build common goals and objectives for the student teaching experience. Incorporating cooperating teachers into the university's community might help align the *Scenes* candidates experience in the classroom and the field.

Third, candidates need at least two types of support from faculty and staff at the university. These supports would better enable the *Agents* to act in a way that fulfills their dual purposes of completing the edTPA and enacting their beliefs about teaching and learning. Firstly, candidates need practical and technological supports to complete the edTPA. As this study

revealed, the video component can impact candidates' planning and demonstrations of teaching. Though it might not have as large of an impact as other factors, it did constrain some candidates' ability to demonstrate their beliefs in their portfolios. Like the findings in this study, one reason for this impact seemed to be because candidates and programs were ill-equipped for the technological requirements of the edTPA (De Voto & Thomas, 2018), which could also be one reason why participants in Kaya and McIntyre's (2020) study suggested they were more concerned about the edTPA than their actual student teaching. Despite the possibility of not being prepared for the technological requirements, specifically the video component, this study found that even when candidates like Katie were negatively impacted by the video component, they still found the video component helpful to analyze their teaching. This suggested that candidates benefitted from being able to watch themselves teach, which Xiao and Eriksson (2020) also suggested after investigating the impact of reviewing video of their own instruction had on candidates' professional development. Helping candidates plan and execute the video component of the edTPA would be a step in the right direction to help candidates demonstrate their beliefs when their setting allows them to demonstrate their beliefs. In addition, programs need to consider using video analysis with teacher candidates earlier in their programs and more frequently. This will not only help candidates be comfortable with the technological components of the edTPA, but it might also support their reflection on these components of their portfolio.

More general support in completing the edTPA could be provided in several ways. Okraski and Kissau (2018) suggested that programs providing content-specific support seminars were more effective than general support seminars. These support seminars should also include requirements that candidates not passing the edTPA on their first attempt meet with faculty to reflect on what might have gone wrong, why it went wrong, and to make a plan for the future.

These meetings would be most effective with a faculty member the candidate has a good relationship with. Therefore, programs, especially larger programs, need to work hard to develop stronger and more personal relationships with candidates. This might help candidates feel more comfortable asking faculty for support or advice. Meredith's conversation with a mentor of hers about what to represent in the edTPA provides a good example of this type of relationship.

Additionally, university supervisors and faculty need to be informed how the edTPA can be used as a positive tool and be trained on the how to support candidates on the edTPA. This includes promoting candidates' positive conceptions of the edTPA by speaking about the edTPA in positive ways. Helton (2018) found that candidates' beliefs were not made worse by their experience with the edTPA. Rather, their conceptions of the educative quality of the edTPA after completing the edTPA were similar to their conceptions of the edTPA before taking it. If teacher educators can use the edTPA as a formative tool and demonstrate to candidates the value of the assessment, then candidates are more likely to find the experience as valuable and helpful in becoming a better teacher. Cooperating teachers, like Nick's, can be great resources, but they are not as effective as people who have been trained to work with the edTPA (i.e., Meredith's mentor). University supervisors are often former teachers or administrators who have not been part of the preparation program's faculty and staff. Therefore, they might not have the knowledge of the edTPA or a firm relationship with the candidate to provide the support candidates need. This leads to the second form of support candidates need from faculty and staff.

Secondly, the edTPA might be useful for helping teachers candidates learn how to shape their teaching to fit particular contexts. The second interview with participants took place during the fall of their first year of teaching. This provided a unique opportunity to see if participants still believed what they had said they believed about teaching before becoming in-service

teachers. Not only did all the teachers say yes, but several made interesting statements about the close relation between the edTPA and their administration's evaluation of their teaching in that first fall. Gwen mentioned that when she was observed by her administrators during her first fall of teaching, that they wanted to see the same things the edTPA wanted to see. Though she suggested the edTPA allowed her to demonstrate teaching in many ways, she suggested what her cooperating teacher wanted her to do was the safe route. It accomplished what she needed to do for the edTPA and satisfied her cooperating teacher's goals. It does not mean she preferred teaching in that manner, nor does it suggest it was her conception of quality teaching. Rather, it suggested she understood the "safe route" as a tool to appease certain stakeholders. When scholars like Au (2013) and Dover et al. (2015), and others (e.g., Clayton, 2015, 2018b; Dover & Pozdale, 2016; Meuwissen & Choppin, 2015, 2017) suggested the edTPA pressures candidates to "teach what they think test developers want rather than what their own students need" (Dover & Pozdale, 2016, p. 43), some candidates might feel that pressure. However, it might be that feeling that pressure was a useful experience for candidates' future teaching contexts. Like Gwen, candidates might realize in their first year, or subsequent years, of teaching that administrators and states value certain practices or prescribe curriculums. Being able to identify these practices and put them in to action is akin to having a larger pedagogical toolbelt.

In addition, if preparation programs support candidates well, the *Agent* (the candidate) might know how to adjust their teaching to meet stakeholders' (people part of the *Scene)* desires while teaching in ways that are culturally sustaining. Anderson and Stillman (2013) pointed out that student teachers are unlikely to be able to adapt or infuse problematic curriculums with culturally responsive pedagogies and without significant support and training from teacher educators. Candidates' fledgling ability to make these types of adaptations are why Ahmed

(2019) suggested that teacher education programs would be wise to "employ targeted teacher educator mediation and relational agency to spur [pre-service teachers'] collective agency around leveraging edTPA for [pre-service teachers'] (and teacher educators') own purposes" (p. 24). She then goes on to suggest, and I agree completely, that the edTPA might position candidates to take an "agentic stance" against other similar mandates, such as scripted, prescribed, or heavily structured curriculums, in contexts restricting teacher efficacy and autonomy. This type of support would help candidates work within and possibly subvert problematic *Scenes.* Teacher educators might take up more agentic stances too.

An (2016) realized she needed to model agency in her own teaching because of the implementation of the edTPA. She modeled for candidates how to work within problematic *Scenes* by adapting her curriculum to help teacher candidates develop their historical and sociopolitical lenses with the hope of developing a critical consciousness. In addition, she also reported that she made her teaching and her pedagogical decisions more transparent. Through her move to be more transparent she sought to model how teacher candidates could adapt and infuse policies and curricula with a social justice framework. She also suggested her goal was to build togetherness within the group, which Ahmed (2019) might describe as collective agency. Ahmed suggested teacher education programs might further candidates' ability to adapt and infuse problematic policies and curricula with more effective and culturally responsive pedagogies if they teach candidates how to build relational and collective agency. Relational agency involves knowing "the potential of multiple actors knowing how and who to rely on within and across activity systems to move the object forward" (Ahmed, 2019, p. 24). Collective agency is built when a group of people, in this case teachers and teacher candidates, have a growing sense of ownership of objectives, policies, or curricula. Teacher education programs need to heed

Anderson and Stillman's (2013) warning and work to promote candidates' agency. Doing so might help candidates resist constraining contexts identified in this and other studies (e.g., Greenblatt, 2015; Behney, 2016).

The result of better support for candidates might not only produce higher quality student teaching experiences and that their edTPA reflects their own practice, but also that candidates might score higher on the edTPA (Williams et al., 2019). This support needs to include general and technological supports as well as faculty modeling how to work within constraining *Scenes.*

Fourth, the edTPA is neither inherently good nor bad. Yes, candidates might have negative or stressful experiences completing the edTPA. Yet, other candidates, like Jacob in this study, used the assessment as a formative and positive tool. Xiao and Tobin (2018) suggested the video component of the edTPA can be very useful for candidates because "video-cued self-reflection can add to preservice teachers' self-efficacy" (p. 331) and allowed for more anchored reflection by bringing the candidate back to the moment of teaching. Even when scholars like Clayton (2018b) concluded the edTPA was a "subtractive experience," they often found candidates described positive impacts and experiences with the edTPA. Conclusions about the edTPA's positive or negative impact on their actions seemed to be a result of its implementation in supportive contexts rather than the assessment itself. Participants in this study represented a variety of beliefs about teaching and they passed the edTPA on their first attempt. In addition, when participants identified misalignment between their beliefs and representations, most candidates found space within the edTPA to correct their misalignments. Therefore, as an assessment, I agree with SCALE and its supporters (i.e., Pecheone, 2019; Sato, 2014) that the edTPA is a useful assessment that allows for a variety of representations and demonstrations of teaching, even in high-stakes settings. As Ahmed (2019) found, the edTPA might even provide

an opportunity for candidates to remove problematic constraints for a few lessons. When it is improperly implemented or not implemented by teacher education programs in supportive contexts, the edTPA can have a negative effect on candidates' experiences. When candidates experience a positive implementation of the assessment, they are likely to represent and demonstrate their beliefs to the best of their ability. This would give programs a better understanding of what candidates' actions might look like as in-service teachers. Hence, they will be able to better understand candidates' preparedness to enter the field.

Fifth, since beliefs can filter, frame, and guide action, then programs seeking to assess their effectiveness in preparing candidates to enter the field might want to investigate candidates' beliefs. Burke's (1945) pentad suggested the *Scene* will shape the *Act* of the *Agent,* this study found that to be true. Candidates' representations in their edTPA portfolio were more likely to mirror their contexts than their beliefs. This suggests if programs are using assessments like the edTPA to measure their own effectiveness in preparing in-service teachers, then they might want to investigate candidates' beliefs before and after their student teaching experience. This investigation will not only help teacher educators and programs understand if they are producing candidates who embody the program's beliefs about effective teaching, but it will also give candidates a baseline to evaluate their ability to articulate those beliefs in writing for assessments like the edTPA. If misalignment exists among the program's beliefs, the candidate's beliefs, or/and the candidate's representation of teaching, then programs can elicit candidates' reflection on their student teaching experience and investigate the causes of the misalignment. Programs might find, as this study did, that candidates experienced several constraints that prevented them from acting on their beliefs. Helping candidates recognize the gaps between their beliefs and practices promotes the cognitive dissonance that can stimulate teacher change (Borg, 2018). In

addition, Tillema (2000) found that candidates who partook in reflective practices after their student teaching experience were less likely to revert back to their initial beliefs about teaching. This suggests that teacher education programs should consider implementing purposeful debriefing sessions with candidates after their student teaching experience. Similar to the triad meetings at the beginning of candidates' student teaching experiences mentioned in the first implication, these debriefing sessions would further develop the relational and collective agency Ahmed (2019) suggested candidates needed in order to resist problematic constraints. In particular, these debriefing sessions should be held with candidates who do not pass the edTPA on their first attempt. In these debriefing meetings, programs can elicit feedback to evaluate themselves. Besides recognizing the individual's constraining factors, finding misalignment should also lead programs to evaluate themselves. Are programs incubators for external factors constraining candidates' ability to enact their beliefs? Are programs promoting the reflection needed after student teaching to ensure candidates' beliefs stabilize?

Sixth, when candidates express multiple metaphors as fitting their created metaphor, they might be expressing the complex nature of teaching. Meuwissen and Choppin's (2017) conclusion that "conceptions of teaching quality are at least somewhat contingent upon what is named and prioritized in a high-stakes test that only partially captures the construct's dimensions" (p. 606) suggested that candidates mistake quality teaching for what the edTPA asks candidates to do. However, it is clear from this study that candidates have a much deeper understanding of the complexity and quality of teaching and the forces shaping their teaching than they are being given credit for. For example, several candidates used the prompts within the edTPA (Burke would classify this as the *Agency* component of the pentad) to suggest adjustments to their teaching that would align more with their beliefs. This suggests that

programs might be doing a better job inducting candidates into the professional dispositions the programs valued than previously thought. Programs should consider doing exit interviews with candidates, especially those who have completed the edTPA, in order to better understand if the program had been successful inducting candidates that adopted their goals and values while also developing dispositions that reflect the complexity of teaching. These dispositions might include open-mindedness, flexibility, creativity, patience, empathy, and the ability to develop positive relationships with students and colleagues.

Lastly, connecting candidates' representations on the edTPA with their beliefs is an important development for the field because the edTPA was developed and implemented in many contexts to assess teacher candidates' preparedness to enter the field. There is a need to assess and evaluate candidates. The increasing demand from stakeholders external to the field of teacher preparation has heightened the field's need to assess its inductees and justify their preparedness. Coupled with this external pressure is that the work of teaching, particularly student teaching, can feel like a Sisyphean task. Both the external pressure and the internal growing pains of teacher education are not going away. Teacher educators need to figure out how to make gateway assessments in teacher education bring value to our programs rather than detract from what they are trying to accomplish. This study concluded the edTPA is capable of being this type of assessment. It can definitely be this type of assessment when teacher education programs ensure candidates are placed in settings that are congruent with the program's goals. However, even when candidates were not in supportive contexts in this study, the edTPA provided avenues for them to represent their beliefs about what teaching and learning should be. Though the *Scene* of Burke's pentad may not be able to be overcome in problematic settings, it might be possible for the *Agent* to *Act* more like they desire if they know how to use the *Agency*

(edTPA) to critique or push against the *Scene.* I believe this will only occur if teacher education programs promote candidates' agency and teach them how to work within while subverting problematic contexts and then providing the faculty and institutional while completing their student teaching and the edTPA.

Limitations

This study's methods and sampling procedure had several limitations. First, and with the greatest potential to limit this study's findings, would be participants censoring or distorting their recall in order to present themselves favorably (Gaier, 1954; Lyle, 2003). This study explained to participants that their experiences would help shape teacher education for the betterment of future candidates. Each candidate bought into this hope and I believe shared frankly. A related limitation would be the lack of observation of candidates' actual teaching. Observing candidates in their classrooms might have helped affirm candidates were not censoring or distorting their recall. In addition, it might have been useful to observe lessons not included in their edTPA portfolio to investigate if participants altered their teaching practice for the edTPA. Interviewing participants' cooperating teachers might have also helped to understand the external constraints several candidates mentioned.

Second, the elicitation techniques could not provide a complete recall of participants' inner processes. Researchers such as Hargreaves et al. (1975) argued that candidates might not even be able to verbalize some implicit internal processes. Others, Calderhead (1981) for example, disagreed but suggested that self-reporting techniques, such as metaphor analysis and stimulated recall, were influenced by a number of factors, including loss of memory, which were not in the researcher's control. Since the interviews were completed several months after the participants completed their portfolio and received feedback, it was possible that their memory of

the inner processes that led to specific representations had been distorted or forgotten. This is one reason Gass and Mackey (2000), among others, suggested less lapse in time between the action and the interview promotes validity. However, asking participants to be interviewed in the midst of student-teaching, completing an extensive portfolio, job searching, and graduating risked fulfilling Gaier's (1954) concern regarding distortion or censoring. It was possible the participants would distort or censor their responses in order to complete an interview rather than provide as honest of data as possible. There were several times when a participant described feeling frustrated with the edTPA, but then stated they could not remember what they were frustrated about. Additionally, several participants suggested they found more alignment between their beliefs and representations than they were expecting. This suggests that the stress of completing a high-stakes assessment might induce negative perceptions of the value of the edTPA.

These first two concerns were reasons researchers (e.g., Barton, 2015; Lyle, 2003; O'Brien, 1993; Tuckwell, 1980) suggested that an elicitation technique such as stimulated recall requires strong and positive rapport with participants. A strong rapport might help candidates not feel as if they were performing for the researcher. Barton (2015) suggested that using elicitation techniques such as these builds rapport with candidates because the elicitation techniques welcome the candidates into the research. The elicitation techniques promoted transparency with the participant. Between the transparency these techniques promoted, the explanation of the goal of the research to help teacher educators better support candidates, and my own personal relationships with most of the participants, it was clear the participants were invested in the research. This investment helped address the first two limitations.

Third, this study took place with participants who completed a form of the edTPA. The purposefully used snowball method of selection of participants did not concern itself with whether participants submitted their portfolio to Pearson or only for local evaluation by the university. Additionally, the participants came from the same institution, rather than a set of institutions. The university the participants attended is located in a state where the edTPA is not required for licensure. Therefore, candidates did not have to submit their edTPA to Pearson. Some might consider this a limitation of the study's ability to generalize its findings to the Pearson-evaluated edTPA. However, as both Huston (2015) and Coloma (2015) presented in their research, the effect of locally assessed edTPAs on candidates was consistent with studies investigating the mandated and nationalized version of the edTPA.

Fourth, this study consisted of a relatively small sample of participants who were recruited using a purposeful snowball method. These candidates were all white or functionally white. Literature on the impact of the edTPA on candidates suggested candidates of color are less likely to pass the assessment (Goldhaber et al., 2017) or might be subject to negative bias (Petchauer et al., 2018). Because this study did not have any candidates of color volunteer to participate, the study cannot make generalized conclusions for all candidates attempting the edTPA.

Future Research

Future research on this topic could move in several directions. These would include expanding the sample size in order to be able to draw more generalized conclusions about candidates' beliefs and the factors impacting their representations on the edTPA. This larger representative sample size would also need to include candidates who did not pass the edTPA on their first attempt, candidates who submitted their portfolios to Pearson, and participants who are

representative of the demographics of candidates completing the edTPA. In particular, including participants of color or/and who are non-native English speakers would be important to address concerns expressed by some researchers (e.g., Tuck & Gorlewski, 2017). Current research reporting on findings related to candidates of color and non-native English-speakers suggests both groups have a more difficult time passing the edTPA (Gitomer et al., 2019; Goldhaber, et al., 2017; Ledwell & Oyler, 2016). Recruiting a larger, more representative sample size that is less reliant on convenience sampling also aligns with Fives and Buehl's (2012) exhortation to use larger, more representative samples.

Research studying the edTPA and candidates beliefs also needs to look closely at the candidates' contexts. Several studies have concluded that the edTPA negatively impacted candidates ability to demonstrate or represent social justice-oriented teaching (e.g., Behizadeh & Neely, 2020; Petchauer et al, 2018). These studies then raised concerns about the consequential validity of the edTPA. However, the present study suggested candidates might be more impacted by external constraints shaping their demonstrations and representations than the edTPA. Though candidates in urban contexts might have felt their teaching, and therefore their representations in the edTPA, had been constrained by the edTPA, the actual constraint might be something external to the edTPA. Ahmed's (2019) case study of two candidates placed in urban settings demonstrated how the edTPA actually provided candidates in an urban setting a path to use more social justice-oriented teaching practices.

Relatedly, studying candidates' contexts would include performing classroom observations. These observations would help reveal the congruence between candidates' stated beliefs, their representations in the edTPA, and their routine teaching practices. Munby (1987) and Pajares (1992) both suggested observations were important when investigating candidates'

enacted beliefs. Though they also suggested lesson plans also revealed enacted beliefs, pairing observations with candidates' lesson plans would only provide additional evidence for which to support conclusions. In particular, observations would help address Gaier (1954) and Lyle's (2003) concern that candidates might censor or distort their recall. The observations might also provide evidence of the cooperating teachers' level of support or control of the candidates' teaching.

Additionally, future research should build on Behney's (2016) investigation of cooperating teachers' impact on edTPA performance by evaluating whether candidates' beliefs are impacted by their cooperating teachers and how this influences their representations on the edTPA. This path of research could include investigating the differences that candidates experience with the edTPA when their cooperating teacher held their National Board Certification. Since research suggested that beliefs have a dialogic relation with contexts and experiences (e.g., Bandura, 1987; Muijs & Reynolds, 2002; Skott, 2001), candidates might articulate differing beliefs during their student teaching than once they are removed from their placements. A similar vein of research would be studying how candidates compared their representations in their edTPA and the ways they were teaching in their first year of their careers. The present study hinted at several ways participants' practices could be shaped by the edTPA (e.g., giving feedback or tailoring lessons for certain stakeholders). Selke (2018), in a study researching the educative nature of the edTPA, found that the edTPA influenced teachers' practices once they were in the classroom. Developing a longitudinal study researching teachers' beliefs from their time as teacher candidates through their first five or ten years of teaching would help affirm or deny the impact of the edTPA and the stability of beliefs.

Lastly, over ten years ago Grossman (2008) pointed out that teacher educators did not have a strong research base to determine whether they were being successful in preparing teachers to enter the profession. Studies like this one suggest that candidates might be more prepared to enter the field than previously thought. This conclusion is based on the idea that participants in this study were able to identify and justify their representations of their practice when it did not align with their beliefs. If beliefs are predictors of future actions, this study gives evidence that most participants are primed to be effective teachers if they are placed in supportive contexts. More research needs to be done investigating the alignment of candidates' beliefs with the beliefs of their preparation program. Knowing this will help programs make better arguments regarding programmatic effectiveness.

Appendix A

Interview Protocol for First Interview

Pre-interview

- Prior to the interview record identification of the participant and date.

Commencement of Interview

1) Engage the candidate in general conversation in order to establish a relaxed atmosphere
2) Reiterate the objectives of the study to reduce the danger of the candidate constructing their own theory about the study's intentions and therefore distorting data.
3) Explain the roll of the researcher is to ask questions and provide clarification of meanings during the metaphor analysis. Stress that the researcher is not being evaluative of either their responses.
4) Guarantee anonymity and confidentiality of the session.
5) Build on the rapport established at the commencement of the interview and in the first interview by attending to the affective dimensions such as respect, understanding, and interest. Facilitate self-discovery by adopting an unobtrusive role; pose open-ended questions when candidate statements require elaboration or clarification. Leading questions or evaluative statements should be avoided.
6) When the candidate is speaking pay close attention to what is being said to:
    a. Assure them of the value and importance of their statements.
    b. Determine which of the many aspects of the statement require follow-up questions.

Questions:

Adapted from Munby (1984)

1. Conversationally provide a definition of metaphor and an example of how a person from another profession might describe their beliefs about their profession using a metaphor.

A figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable.

Ex. Pastors use the metaphor of shepherding to describe their vocation or a CEO might use the metaphor of captaining a ship to describe their job. A project manager might describe themselves as orchestra conductors.

2. When thinking about teaching, what metaphor would you use to describe teaching?
3. What we are going to try and do is get you to talk about the teaching you do, and the sorts of things which cause you to teach in the way you do, and try to do that in a way that is hopefully your language and not my language. And the way in which this is done is to start by asking you to tell me what sorts of things I might see were I to visit your classroom, say next week, and if it was your best class in terms of the best sorts of teaching you like to do or maybe even the best kids if you wish. And tell me the sorts of things I would see in terms of brief statements like "The students are writing at their desks," "The teacher is writing on the board," "The teacher is lecturing," "The students are working in groups," those sorts of statements; and we'll aim to get around 12 or 15 of these, and I may put in some of my own as well.
4. Does your initial metaphor fit these statements?

Adapted from Fives and Buehl (2008)

1. What is teaching?

2. What do you believe is the purpose of schools?
3. What knowledge is necessary for effective teaching? Please be specific.
4. Describe your philosophy of teaching.
5. What is learning?
6. Who is responsible for learning in the classroom?
7. How do you know when a student has learned something?
8. What is the most important goal to have as a teacher?
    a. How is what you just stated related to one of these
9. The following Teacher Goals have been identified in a variety of research studies. Please rank these goals in order of importance based on your own belief system from 1 (most important) to 13 (least important).

Teachers should emphasize...

– Equality among students – The products of learning – Instruction based on student interests – Student independence – Learning standards – Content specific knowledge – Academic excellence – Critical thinking in students– Life-long learning – Generalized skills and abilities – Instruction based on subject matter – The process of learning – Student creativity

Overarching Metaphors From Alger (2009, pp. 744, 746)

10. Returning to your initial metaphor about teaching, which one of these categories does it fit within? Please explain your selection(s).
    a. Teaching is guiding

I see myself leading my students on a treasure hunt. I have a map that shows us the way. Sometimes the path is hard and some- times it is easy, but it is always worth it when we get to the end.

b. Teaching is nurturing

It is a sunny day. I see myself holding a watering can and carefully attending to my seedlings. I make sure that the soil, water, and climate are rich and right for each seedling so that each will develop and blossom.

c. Teaching is molding

I am seated at a potter's wheel with a lump of clay. I carefully mold the clay into a well-shaped and beautiful vase. Sometimes it takes pushing and prodding to get the vase to develop.

d. Teaching is transmitting

I have a large sum of money, which I deposit into a series of accounts. The goal is to deposit as much money as I can into each account so that each account has a high balance.

e. Teaching is providing tools

I wear a large tool belt. As each worker constructs his or her house, I provide the builder with the tools he or she will need to be successful in completing the project

f. Teaching is engaging in community

I am part of a community that is building a house. We collectively decided that we need a house and then we design and build it together.

g. Teaching is —— (build your own category)

Figure A1

Organizing principles of studies on teaching metaphors

Researcher	Metaphor 1	Metaphor 2	Metaphor 3	Metaphor 4	Metaphor 5	Metaphor 6
	Guiding (teacher-centered)	Nurturing (teacher-centered)	Molding (teacher-centered)	Transmitting (teacher-centered)	Providing Tools (student centered)	Engaging in Community (student centered
Mahlios and Maxson (1998) Preservice K-12	**Guiding** Leading students to knowledge	**Nurturing** Providing environment to promote growth	**Stimulating** Prodding and encouraging students to acquire knowledge	**Telling** Passing on information and knowledge		
Gurney (1995) Preservice secondary thematic classification	**Enlightenment** Journey, discovery – latent quality in the form of either valuable knowledge or hidden potential of students which becomes revealed through learning **Hike along a mountain path** **Guide who points student in direction of knowledge** **Travelling in a foreign country**	**Change** Learner becomes different in some way as a consequence of learning – growth and transformation **Sun giving energy to plants** **Gardener taking care of plants.**	**Humanics** Imply that teaching and learning are personal and human activities involving interaction, exchange, struggle and persistence **Parent teaching a child to walk** **Tennis match (continuous interchange between T and S**	**Delivery** Unidirectional transference **Messenger** **Water being poured on a sponge.**		
Martinez et al. (2001) Preservice and experienced typical metaphor				**Behaviorist/empiricist** Teacher is transmitter of knowledge. Knowledge externally determined product. Student is recipient. **Tuning an instrument** **A game of billiards** **Electric circuit**	**Cognitive view** Teacher is facilitator, student is actively constructing knowledge (which is not seen as fixed.) **Setting the bricks of a house**	**Situative socio-historic view** Social constructivism, equitable distribution of power, and ethic of care All participate in the search of knowledge **Joint work of ants (travel with group decision making)** **Social reform** Share teacher and student control encouraging multiple viewpoints in a community of learners. **Democratizing** **Acceptor/Partner**
Oxzford et al. (1998) Language teachers		**Learner-centered growth** Shared teacher and student control Facilitating development of innate potential **Gardener** **Nurturer**	**Social order** Teacher control Shaping learners through external reinforcement **Molding** **Manufacturer** **Doctor**	**Cultural transmission** Unidirectional direction giving **Gatekeeping** **Conduit**		
De Guerrero and Villamil (2002) Experienced ESL teachers. She categorizes nine metaphors into 9 groups. I only use 6 and consider the other 3 as outliers.	**Teacher as cooperative leader** Teacher guides/directs students to achieve goals Learning is working toward goal **Trail Guide** **Movie director** **Symphony director**	**Nurturer** Teacher fosters potential capabilities of students Learner is developing organism and learning is growth and development which is affected by nature and nurture. **Bee, Mother Nature, gardener**	**Challenger/Agent of Change** Teacher creates challenges to bring about change. Learner is an object of change and learning is change and advancement. **Snag in the river, bull fighter, lion tame** **Artist** Teacher molds learners into works of art. Learners are raw material who are molded and shaped. **Potter**	**Teacher is provider of knowledge** Teacher dispenses knowledge to students, student is recipient of knowledge **Wire in thick wall, tree full of apples**	**Provider of Tools** Teacher makes tools available for students to construct meaning. Learner is constructor of his/her own knowledge **Tool carrier**	

Adapted from Alger (2009, p. 745

Appendix B

Interview Protocol for Second Interview

Commencement of Interview

Adapted from Tuckwell (1980)

1) Engage the candidate in general conversation in order to establish a relaxed atmosphere
2) Reiterate the objectives of the study to reduce the danger of the candidate constructing their own theory about the study's intentions and therefore distorting data
3) Outline the rationale for using visual (the edTPA video tapes) and written (the edTPA as an artifact) stimuli to facilitate the reliving of the lesson
4) Stress the need for complete and accurate recall and ask the teacher to:
    a. Indicate when they cannot recall thoughts that occurred at a particular stimulus point
    b. Differentiate between thoughts which occurred during their writing of the edTPA and those which occurred afterwards
5) Ask the teacher to concentrate on their reading of the edTPA in order to "relive" its construction, and recall thoughts, feelings and reactions that were experienced during the lesson.
6) Encourage the candidate to identify stimulus points at which to stop and recall their thoughts about their representations. Explain that the interviewer will also identify stimulus points. These points might be related to their first interview or contradictions presented in the edTPA commentaries.

    a. It should be noted that the participant loses some sense of control of being the ultimate interpreter of their own experience when the interviewee identifies stimulus points as well.

7) Explain the roll of the researcher is to assist the teacher to recall and articulate thoughts and feelings as accurately and completely as possible. Stress that the researcher is not being evaluative of either the edTPA or of the reported thoughts.
8) Guarantee anonymity and confidentiality of the session
9) Build on the rapport established at the commencement of the interview and in the first interview by attending to the affective dimensions such as respect, understanding, and interest. Facilitate self-discovery by adopting an unobtrusive role; pose open-ended questions when candidate statements require elaboration or clarification. Leading questions or evaluative statements should be avoided.
10) When the candidate identifies a stimulus point, record the time at each stop.
11) When the candidate is recalling his thoughts pay close attention to what is being said to:
    a. Assure them of the value and importance of their statements
    b. Determine which of the many aspects of the statement require follow-up questions.

Possible Open-ended Questions or Follow-Up Questions

1. How do you conceptualize the process of doing the edTPA? (Probe for how it relates to their ideas about teaching and learning)
2. Tell me why you chose this video, assignment, or assessment.
    a. Give me an example of how this relates to your metaphor of teaching and learning from our first interview.

3. Why did you include this theory or research to support your reflection? Ex. Why did you write about Vygotsky here?
4. What were you thinking about when completing this section?
5. How does this relate to your view of teaching and learning?
6. Do your responses on the edTPA represent you as a teacher?
    a. Give examples of the way your metaphor for teaching in the first interview is revealed in your representations of teaching and learning on the edTPA.
7. How do your beliefs about the edTPA impact your responses?
    a. Why do you feel like you were able or unable to represent yourself as a teacher on the edTPA?
8. Tell me about a section of the edTPA where …
    a. you were really able to show who you are as a teacher.
    b. you felt didn't measure what you are able to do.
    c. you really struggled.

After Stimulated Recall

1. How would your students in the edTPA, describe your teaching?
    a. Does this align with your beliefs about teaching? Why or why not?

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ALEXANDER S. BUTLER

Academic Degrees

2020	Ph.D.	Curriculum and Instruction Robert Kunzman (chair), Keith C. Barton, Alexander Cuenca, Joshua Danish Teacher candidates' beliefs about teaching and representations of teaching on the edTPA Minor: Teacher Education Minor: Learning and Developmental Sciences	Indiana University, Bloomington
2012	M.A.	Religion	Olivet Nazarene University
2011	M.Div.	Religion	Nazarene Theological Seminary
2007	B.S.	Religion	Olivet Nazarene University

Certification

2014 Indiana State Emergency Teaching Permit, Grades 6-12

Professional Experience in Education

University

Dec. 2018 – present	Adjunct Professor, School of Education, Urban Elementary Education Program, Indiana University-Purdue University Indianapolis
Aug. 2016 – present	Associate Instructor, School of Education, Indiana University
Aug. 2007 – May 2008	Teaching Assistant, School of Theology, Olivet Nazarene University

Schools

Jan. 2020 – present	Social Studies Teacher, Grade 8, KIPP Indy College Prep Middle (In.)
Sept. 2014 – June 2015	Spanish Teacher, Grades 9-12, MSD of Decatur Township (In.)
Aug. 2014 – Sept. 2014	Substitute Teacher, Spanish I & II, MSD of Wayne Township (In.)
Aug. 2008 – June 2009	Substitute Teacher, Grades 6-12, Center School District (Mo.)
Dec. 2004 – June 2008	Substitute Teacher, Grades K-12, Prince William County Schools (Va.)

School Services

Jan. 2019 – present	Site Coordinator, Grades K-8, KIPP Indy Public Schools, (In.)
Aug. 2017 – present	edTPA Evaluator, Indiana University, (In.)
May 2015 – Aug. 2018	Lead Supervisor, Grades 9-12, TeenWorks (In.)

Curriculum Development and Consulting

Natural Born Leaders Academy, Indianapolis, (In.)
TeenWorks, Indianapolis, (In.)
¡Anda! Spanish, Indianapolis, (In.)

Interests
Social Studies
Teacher Education
Learning Sciences
Curriculum Development
Assessment
edTPA

Publications

Butler, A. S. (in press). The impact of external contextual factors on teacher candidates' identities. *Center for Educational Policy Studies Journal,* 11(3).

Presentations

Butler, A.S. (2020, April). The edTPA: Its historical situatedness and can it change the field for the better? [Conference session]. Society for the Study of Curriculum History, San Francisco, CA. (Conference canceled)

Butler, A.S. (2020, March). Engaging implicit biases: Creating an experience that challenges teacher candidates' understanding of poverty. Poster session presented at the E.C. Moore Symposium on Excellence in Teaching of Indiana University Purdue-University Indianapolis, Indianapolis, IN.

Butler, A.S. (2019, November). Representations and realities of student teachers: A critical analysis of edTPA discourse. Presentation to the annual Indiana Association of Colleges for Teacher Education, Indianapolis, IN.

Butler, A.S. (2019, February). A case study investigating student-teachers' identities and concerns within their situated experiences. Presentation to the annual American Association of Behavioral and Social Sciences, Las Vegas, NV.

Butler, A. S. (2018, May). The edTPA: Capable of assessing teacher effectiveness for *all* learners? Presentation to the annual Midwest Social Studies Graduate Student Retreat, Indiana University, Bloomington.

Butler, A. S. (2018, February). The edTPA and interest convergence. Paper presented at the annual conference of the Curriculum and Instruction Research and Creative Activity Symposium (CIRCAS), Indiana University, Bloomington.

Butler A. S. (2017, December). edTPA for student teachers, Presentation to m401 "Seminar and Field Experience in Elementary Social Studies", Indiana University, Bloomington.

Butler A. S. (2017, November). Aiming for constituent communities, Paper presented to the annual conference of the Association for Moral Education, St. Louis, MO.

Butler A. S. (2016, February). The autonomy dialogues, Presentation to the annual conference of the Curriculum and Instruction Research and Creative Activity Symposium (CIRCAS), Indiana University, Bloomington.

Butler A. S. (2016, April). The Purpose of Schooling: German immigrants and American perspectives within Indianapolis, Presentation to the annual conference of the Society for the Study of Curriculum History, Washington, D.C.

Fellowships

2015-2016 DeVault Graduate Fellowship, Indiana University
2007-2008 Graduate Fellowship, Olivet Nazarene University

Activity in Professional Organizations

2019 Indiana Association for Colleges for Teacher Education
2018-Present Indiana Council for the Social Studies
2016-2017 Society for the Study of Curriculum History, Student SIG member

Professional Activities

Journal Manuscript Reviewer *Theory & Research in Social Education*
Curriculum and Teaching Dialogue

Conference Proposal Reviewer *Curriculum and Instruction Research and Creative Activity Symposium*, Bloomington

University Service

Indiana University

2016 – present CIRCAS Planning Committee, Indiana University, School of Education
2016 – 2017 Elementary Faculty Committee, Indiana University, School of Education
2016 – 2017 Secondary Faculty Committee, Indiana University, School of Education

Courses Taught

Indiana University Bloomington

Undergraduate
Introduction to Educational Thought
Teaching in a Pluralistic Society
Elementary Education for a Pluralistic Society

Indiana University-Purdue University Indianapolis

Undergraduate
Social Studies in Elementary School
Graduate
Elementary Social Studies Curriculum

Olivet Nazarene University

Undergraduate
Christian Formation

Course Certificates

Fundamentals of Online Teaching
Office of Instructional Consulting in the Indiana University School of Education

Creating an Accessible Syllabus Using Microsoft Word
UITS Assistive Technology and Accessibility Centers at Indiana University

Grants, Awards, and Other Recognition

Department of Curriculum and Instruction Graduate Travel Award (2017-2018, 2018-2019)

Places Lived

Countries

Germany
South Korea
Spain
United States (Seven states)